Vol. XXIV. Part 12.

[Registered at the General Post Office, Melbourne, for transmission by Post as a Newspaper.]

The Journal of the Department of Agriculture of Victoria, Australia.

December, 1926.

PRINCIPAL CONTENTS

Wheat Varieties Recommended

Watering Lucerne

Standard Herd Test—Quarterly Report

The Scrub Bull

District Herd Testing Work

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THE DEPARTMENT OF AGRICULTURE.

VICTORIA, AUSTRALIA.

CONTENTS.—DECEMBER, 1926.

		PAGE
Wheat Varieties Recommended by the Department	*J. Brake, B.Ag.Sc.*	705
Watering Lucerne	*L. C. Bartels, B.Ag.Sc.*	710
Dried Vine Fruits—Report of the Imperial Ecomonic Committee (continued)		715
District Herd Testing Work		723
The Scrub Bull	*A. J. Gill*	727
Plant Enemies at Our Gate	*E. Meeking*	730
Lindenow Maize Variety Competition	*L. C. Bartels, B.Ag.Sc.*	733
Future of Farming in South America		736
Standard Herd Test—Report for Quarter ended 30th September, 1926		737
Testing Samples of Milk of Cows in Standard Herd Test		754
Stallion Register, 1926-27—Part I.		755
Orchard Notes		766
Reminders for January		767

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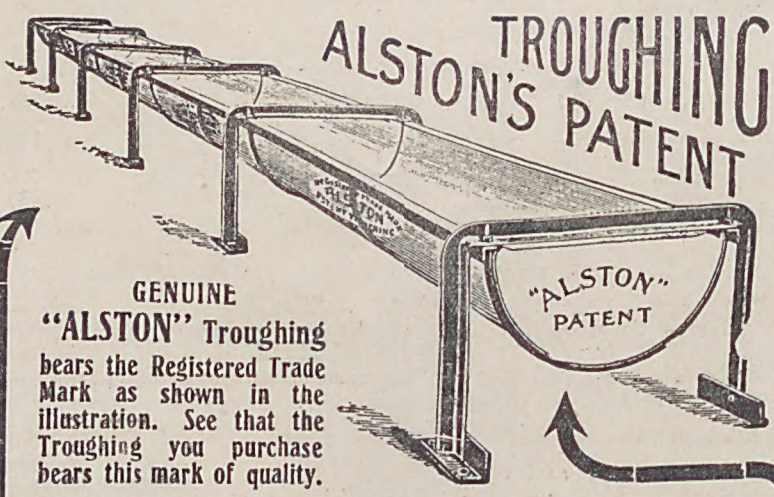

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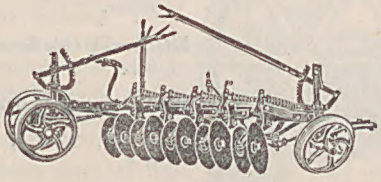

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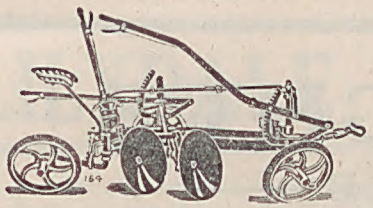

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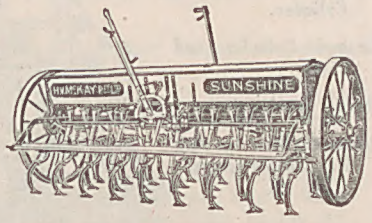

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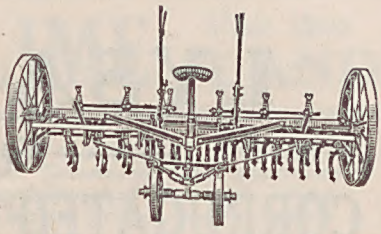

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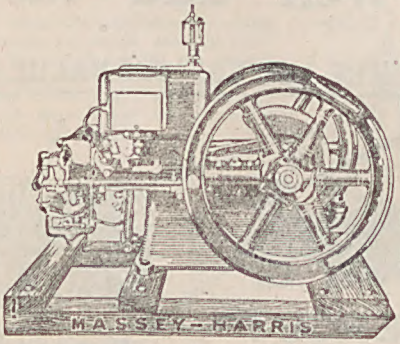

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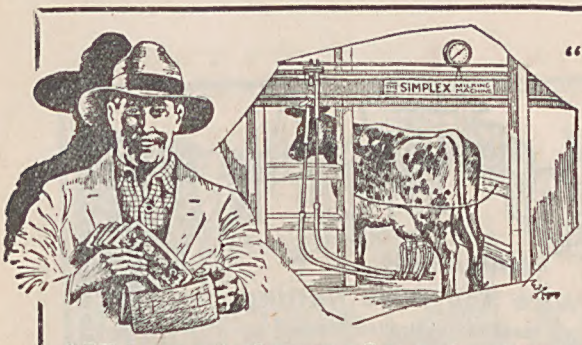

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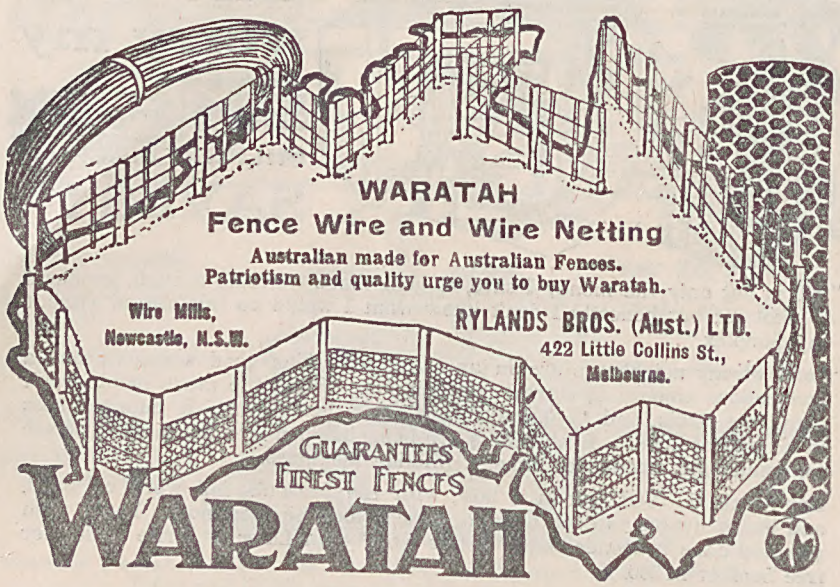

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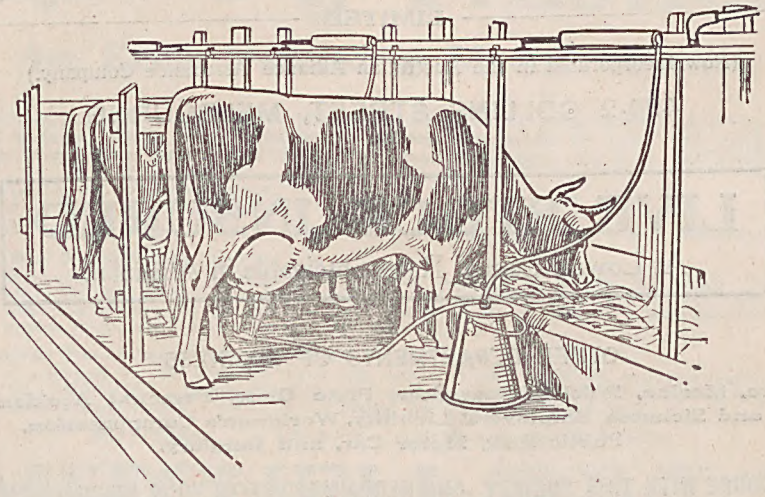

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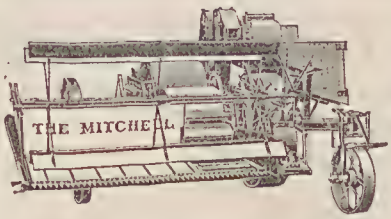

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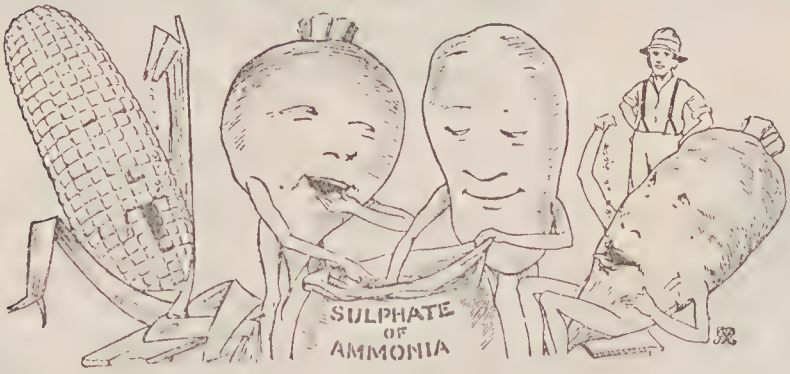

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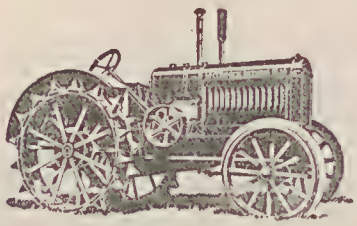

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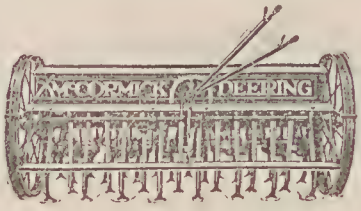

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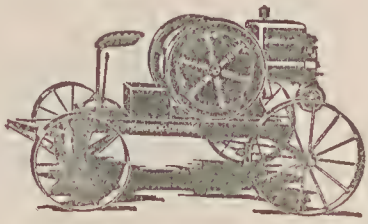

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THE JOURNAL

OF THE

Department of Agriculture

OF

VICTORIA.

Vol. XXIV. December, 1926. Part 12.

National Museum of Melbourne

WHEAT VARIETIES RECOMMENDED BY THE DEPARTMENT.

By J. Brake, B.Ag.Sc., Senior Inspector of Agriculture, broadcast through 3LO.

The phenomenal advances made in wheat-growing in recent years have not been gained by haphazard means.

This is indicated in many ways, one of which I propose to deal with this evening; that is, the provision by the scientist of more prolific wheats, and also wheats more suited to particular districts.

A new variety is produced by the cross-breding of one wheat with another. The actual transference of the pollen from the male portion of the one parent to the female portion of the other parent is a simple enough business; but the complete work of obtaining a fixed new variety is very intricate indeed, and need not be attempted by a layman with much hope of success.

Hundreds of different varieties of wheat exist to-day, but, naturally, only a small percentage of them are of use to us as profitable varieties to grow.

The question for the farmer then, is: "Am I growing the variety of wheat which will return me a maximum yield per acre?"

To decide this point, the Department of Agriculture carries out extensive trials, testing one variety of wheat against another. These trials are conducted at the State farms, and also at centres representative of the wheat-growing areas throughout the country.

A number of varieties are sown side by side, under uniform conditions of soil, manure, rates of seeding, &c., and the weights of the produce obtained from each plot are compared. If a test of this kind be carried on for a number of years, the average of the results obtained from any one variety may be taken as a reliable indication of its prolificacy.

To a novice, any two wheat plants may appear to be similar, but to the expert there may be an immense difference. Each variety is possessed of certain definite characters, and it is the particular combination of these characters in the plant that determines its value to the farmer.

For instance, it is essential that the variety chosen should return a high yield per acre; at the same time, however, a prolific yielder might be quite unsuitable, owing to the presence of undesirable characters.

This point was well illustrated about nine years ago in the variety Gallipoli, which was bred by mating the wheat Clubhead with Yandilla King.

High yields were obtained from the new cross-bred, but, owing to the great difficulty in harvesting the grain, it was soon dropped in favour of varieties less tough to strip. Since then, of course, another selection of the same cross has been developed, namely, Free Gallipoli, which is a heavy yielder and is easy to strip.

Other characteristics which have to be considered by the farmer are—resistance to disease, the time of ripening, habit in regard to stooling (i.e., the number of stalks grown on each plant), and the height of the crop. In regard to the latter, for instance, it is desirable to grow tall wheats in the new Mallee in order that the crop will stand above the mallee shoots, and also to ensure getting a good, clean burn of the stubble.

A strong preference exists amongst overseas buyers for our white-grained wheats as against our red-grained varieties, the reason being that the flour made from Australian white wheats is of excellent white colour, and is very useful for blending purposes. Consequently, the growing of red-grained wheats is strongly discouraged in all the States except Queensland, which State claims that the use of red wheats there is warranted by the high yields obtained.

The desirable and most profitable variety, then, may be taken as one which is fixed in type, a heavy yielder, and not tough to harvest. It should be upright in growth, and not easily blown flat by the wind; moderately resistant to disease, and should ripen in season suitable to the district.

The varieties grown in Victoria in the latter portion of last century had many disadvantages; generally speaking, they were long-maturing, tall wheats, subject, to a considerable extent, to rust and disease. They had not been produced actually for Victorian conditions, but were possibly the chance selection from some foreign variety, grown under very different conditions from those obtaining in Victoria.

About 1903, however, Federation wheat—which had been bred a few years previously by William Farrer—was introduced to the farmers, and immediately showed its worth as a heavy-yielding wheat, very suitable for Victorian conditions.

In a very few years the remark was warranted that the one-time golden harvest fields had changed their colour to the dull-bronze of Federation wheat. Particularly was this so in the Wimmera, where the introduction of the new variety increased the average yield by several bushels per acre.

Since that time Federation has held pride of place in the Wimmera, and to-day yields of 45 and even 50 bushels per acre are not uncommon.

The importance of demonstrating the worth of, and popularizing, a new high-yielding variety is shown by the fact that a rise in the average yield of the State of 1 bushel per acre means an increase of wealth of £750,000 per year.

The profit from the introduction of Federation made clear the necessity of producing wheats which would be more suitable for the different districts than those used prior to that time.

Consequently, many new cross-breds have been produced in the last twenty years. Some of these, such as the original Gallipoli, failed in the field because of some objectionable character, and have been discarded, whilst others have proved their worth and are now amongst the standard wheats of the State.

Before naming and describing the actual varieties recommended, there are a few points worth mentioning which should be remembered in the selection of seed.

Many farmers make the mistake of sowing a great number of different varieties. It is far better on the average to sow three varieties only each year—one early-maturing, one mid-season, and one late-maturing.

Limiting the number in this way makes it easier for the farmer to keep his varieties pure and saves much work in sowing, harvesting, and handling; whilst the use of varieties which come to maturity at different times simplifies harvesting operations considerably.

Even with a properly-fixed variety, selection of the best grain for seed purposes from year to year should be practised, otherwise deterioration in plant and yield will occur. As an assistance in this direction, it is wise to use seed, every fourth or fifth year, fresh from a State farm or college, where measures are taken to preserve and improve the strain.

The results from the local Department of Agriculture experimental field should be taken as a guide by all in the same district. That this is being done to a great extent is evident in the interest displayed by the large numbers who attend the yearly field demonstrations held at each field. At the same time, however, there are still some who either do not know of, or do not bother about, progressive work of this kind, and they go on year after year growing some particular variety, apparently for a more or less sentimental reason which has nothing whatever to do with maximum yield.

Varieties Recommended for Different Districts.

The true wheatgrowing areas of the State can be divided, roughly, into the geographical divisions of—

Northern Country.—Extending from Yarrawonga to Charlton.

Mallee.—Bounded by Kerang, Mildura, Murrayville, and Birchip.

Wimmera.—From Nhill to Horsham, to Donald on the east.

In addition, there is a considerable quantity of wheat grown along the Willaura-Cressy railway line in the Western District.

These divisions, and even districts in the divisions, differ so much from each other in soil and climate that some varieties of wheat, though they grow well in one district, are not suitable for others.

Federation is a variety bred from Yandilla and Purple Straw that has established itself in most parts of the State, covering 43 per cent. of the area sown. It has shown itself to be particularly suitable for the Wimmera, and it also does very well in the northern country. In the Wimmera, Federation is sown on 72 per cent. of the area under wheat, whilst in the northern country it covers 60 per cent.

It is a short-growing, mid-season variety of rather unattractive appearance. Its susceptibility to disease is offset by its high-yielding capacity.

Free Gallipoli.—A selection from the original Gallipoli with all the good qualities of the latter combined with absence of toughness in stripping.

It is giving remarkably good results in all districts, and there is a distinct possibility of its eclipsing Federation in yield and popularity.

Major is a cross-bred from Federation and Wallace, which is a consistently good yielder, especially in the moister districts.

It is a mid-season variety, but may be occasionally late.

Yandilla King.—From Yandilla and Silver King. A wheat that is somewhat tough to strip, but one that yields well in all districts. Being late-season, it is convenient to grow it, so as to spread the work more at harvest time.

Currawa.—A very popular wheat, with a clubby head, densely packed with grain. It is grown largely in the Mallee, Central, North-Eastern, and Gippsland districts.

Wannon is a selection from Federation, which is yielding well in the Wimmera and older Mallee. It is a short wheat with a compact, clubby head.

Rajah, Ranee, Sepoy, and *Nizam* are four of the varieties produced from Indian wheat parentage, and named accordingly.

Rajah is a very early-maturing variety, whilst the other three are mid-seasonal.

All of them are doing very well, particularly in the Mallee, and Nizam in the Wimmera. Sepoy has yielded well at Werribee also.

Mac's White.—A variety suitable for the newer Mallee districts on account of its earliness and its tall habit of growth, enabling it to grow above the mallee shoots.

It yields fairly well, but does not hold the grain very firmly, with the consequence that some loss is always suffered from shaking by the wind, &c.

Summarizing then, the northern country is probably best suited with Currawa, Federation, Free Gallipoli, Major, and Yandilla King. The average yields for the last three years at Rutherglen State Farm from these wheats were—

Free Gallipoli	29 bushels
Federation	25 bushels
Major	25 bushels
Yandilla King	24 bushels
Currawa	22 bushels

Actually 60 per cent. of the wheat sown in the northern country is Federation, whilst 20 per cent. is Major.

In the Mallee, discrimination must be shown between the far northern new Mallee, and the fringe Mallee, north of Warracknabeal.

For the Mallee proper, good early wheats are Rajah and Mac's White; midseasonal are Ranee, Sepoy, and Currawa, whilst Yandilla King is a heavy-yielding late season variety. Gluyas does well in the Murrayville-Ouyen district, and Gallipoli may be sown with profit on the fringe Mallee.

The average results of experiments at Carwarp for the last three years are—

Sepoy	19½ bushels
Yandilla King	19¼ bushels
Mac's White	19 bushels
Ghurka	18½ bushels
Rajah	17½ bushels
Ranee	17½ bushels

While Federation gave only 16¼ bushels per acre.

Coming to the Wimmera we can cut down the number of varieties to four, namely, Federation, Free Gallipoli, Nizam, and Wannon; the last two being more suitable for black soil than the stiff red land.

On the departmental plots on Wimmera land at Salisbury, near Nhill, the average yields for the last three years have been—

Free Gallipoli	47¼ bushels
Nizam	46½ bushels
Wannon	45 bushels
Rajah	45 bushels
Federation	43½ bushels

The College Farm at Longerenong, near Horsham, has made a remarkably good record with Federation wheat. During the last ten years, from the total area of 331 acres harvested each year, an average yield of 37 bushels per acre has been obtained.

For the Willaura-Cressy districts, the experimental plots at Willaura have shown out during the last three years in favour of Federation with 25 bushels per acre; Yandilla King was next with 22½, followed by Free Gallipoli with 21½ bushels per acre.

Extensive trials are conducted at the State Research Farm, Werribee, and the results obtained there should be read with particular interest by the farmers in the country west of Melbourne, with, say, Melton as a centre.

Owing to the slacking off of the demand for hay, many of these men are contemplating the growing of wheat. Results show that varieties suitable for this district are Free Gallipoli, Sepoy, Major, and Yandilla King.

The wheats enumerated have all been thoroughly tested with others by the Department, and can be recommended for use as suggested.

The fact that any particular wheat, which is, perhaps, the fancy of some of my hearers, has not been included does not necessarily mean that it is not a good one. All the same, the probabilities are that a substitute can be found in the above list equal to it, if not better.

WATERING LUCERNE.

By L. C. Bartels, B.Ag.Sc., Senior Irrigation Officer, broadcast through 3LO.

On previous occasions I have referred to the importance of moisture in the growing of lucerne. Some 600 tons of water (including rainfall) is required to grow one ton of lucerne hay. Though the plant likes a warm climate, it is not suited for humid districts, and thrives best in dry districts under irrigation.

I have previously dealt at length with the preparation of land for lucerne under irrigation, and emphasized the value of careful preparation and good grading in order to secure a uniform distribution of water—unless this is achieved the crop will be patchy and uneven.

The methods of applying water vary, but what is called the Border system is in general use. With this method the land is divided into bays by long narrow checkbanks which run down the slope. The surface of the ground between these bays is levelled transversely, and when the water is released from the channel at the head of the bay it spreads from side to side, and moves in a sheet until it reaches the end. Modifications in the system become necessary at times, particularly as regards the direction, length, and width of the bays, and according to the slope of the land, the sidefall, and the porosity of the ground.

The success of a farm irrigation system depends on the man with the shovel, and on him depends also the efficiency with which a quantity of water can be made to serve a given area of land.

It will help the irrigation farmer if he has an intelligent understanding of soil conditions under irrigation. Soil is a mixture of particles of varying size, made from broken-down rock mixed with decaying animal and plant remains. There is a relatively large air space between the particles, making up from 30 to 60 per cent. of the soil volume, according to whether the particles are coarse or fine.

Water added to soils forms a film over the particles. The thickness of the film depends on the quantity of moisture present in the soil and the surface area of the soil particles. If the moisture film is too thin, the plants cannot take it from the particles—the force of adhesion is too great. With extra water the film thickens, and there is movement to the places where the film is thin.

When there is plenty of water the film is so thick that the water moves freely, and the plants can remove it easily; when there is too much it slides off the films surrounding the particles—it is free. If lower layers of the soil are dry it is absorbed by them. In general, water moves from the thicker to the thinner soil film.

Before an irrigation, when the lucerne plants have more or less exhausted the moisture in the upper layers of soil, there is a slow upward movement of the moisture in the lower layers. When the root hairs are absorbing moisture, or evaporation occurs at the soil surface, there is movement of the moisture to supply the loss.

In a well-drained soil, after an irrigation the moisture film will be thickest in the top layers of the soil, and become steadily thinner in the lower layers.

In a very dry soil, particularly a fine-textured one, water penetrates with considerable difficulty. It can be readily understood that if there

is not a moderately thick film of moisture on the particles the water added has first to bring the films to that condition. The first moisture greases the way, as it were, for the descent of the water subsequently added.

It will be noticed in a season like last season, following a dry winter and spring, that the irrigation did not produce the same results as in other years. Except on porous soils the lucerne was stunted and rushed to bloom, often when only a few inches high. This was because of a lack of moisture; the irrigation water did not penetrate the soil. One might say it had no helping hand to reach the lower layers. I have often suggested that, on the heavier lucerne soils supplementary waterings should be given so as to make the water penetrate. The feeding roots of the plant develop only where there is moisture; it is, therefore, very necessary that after an irrigation some investigation should be made to see how far the water has gone down. Sometimes in a field of poorly-grown lucerne of that dark-green appearance so clearly indicative of soil deficient in moisture, one will find where an accidental watering occurred through a break in the channel, a vigorous, healthy growth.

In our clay loam at the Werribee Research Farm it is difficult to get more than 3 inches of water into the soil at a watering unless the bays are long, and the water is applied slowly. In the heavier lands of the Goulburn Valley it is equally difficult, but better results would be obtained if the soil were not allowed to dry out between irrigations. A farmer should never wait until his lucerne is showing the need for water before applying it.

In irrigating lucerne endeavours should be made to reduce losses by run-off seepage and evaporation. With regard to run-off, a little waste may be inevitable, and provision should always be made for drainage to carry off any excess water. In how many lucerne fields do we find the plants at the end of the bay "burnt off" through the water lodging—a condition which could be avoided in many instances by the simple expedient of plowing a furrow and delving a small drain.

Regarding this "scalding out" of lucerne, with consequent bare patches in the crop, I would suggest that, if the trouble cannot be satisfactorily rectified by drainage, the ends of the bays be seeded with rye grass and Alsike clover.

So much for losses by run-off. Now a few words on seepage. The grower should realize that the plants will profit little if, instead of being retained in the soil, the water flows to the water-table below, or is carried off in underground drainage.

If there is a get-away for the excess water the trouble is confined to the waste of water and the loss of removable plant food. If, however, there is no underground drainage the water-table rises, and if it comes within 5 or 6 feet of the surface, it adversely affects the lucerne, while if it comes too close the lucerne will be killed altogether. In some soils, in our irrigated Mallee soils particularly, this raising the water-table causes a concentration of soluble salts near the surface, and by the third avenue of loss—evaporation of water from the surface—this accumulation of salts goes on till it kills all vegetation.

If ground be too porous, it is difficult to irrigate without loss through percolation beyond the reach of the roots, but lucerne is very deep-rooted, and it will be able to forage to great depths unless its downward

progress is barred by the water-table. In such a case, the bays should not be too long, and an effort should be made to do the watering quickly. Some farmers consider it is a splended feature if land will absorb large quantities of water. It is—within limits; that is to say, if the soil stores it as a reservoir where the feeding roots of the plants can get it.

The only practicable manner of reducing evaporation is to keep the lucerne growing so that it covers the ground fairly well. There is less likelihood of loss by evaporation when water is applied to the standing crop, but I am inclined to think that the plant does not use the water so economically when it is freely available at maturity.

Results of Watering Experiments.

To determine with some degree of accuracy the influence of varied rates and frequency of irrigating lucerne, a section of the experimental plots laid down at Werribee in 1919 was devoted to an investigation of these points. A concrete channel was put down, and a sensitive meter installed, so that the measurements of the water applied would be as accurate as possible under the circumstances.

Ten bays were reserved for the plots in this experiment. The check-banks were evenly spaced at half-chain intervals, and on every check-bank was a buffer plot which was separate from the plots in the bay, and was not considered when the produce from the plots was weighed.

One of the plots—a check plot—received no irrigation water at all. The other bays were all watered differently, and during the season received quantities of water varying from 18 to 48 inches per annum. But not only were the quantities varied; the rate of application was varied, e.g., two bays received 18 inches—one in six lots of 3 inches; the other in three lots of 6 inches. Similarly the bays receiving 24 inches of water were given six applications of 4 inches, four of 6 inches, and eight of 3 inches respectively. Thirty inches of water was put on in six lots of 5 inches, and five lots of 6 inches. Other bays were given six applications of 6 inches, and eight of 6 inches. Therefore, it can be understood that the test was a comprehensive one. The range of waterings lay between quantities which we considered would be too little and too much; and so it proved. Eighteen inches of water did not suffice for the best growth of the lucerne, and while 48 inches actually gave the highest yield for a year or two, that rate proved to be excessive.

With increasing quantities of water from 18 inches upwards we found that the yield increased, but not proportionally to the extra water added.

When we consider the yields obtained in the season 1921-22, we find that the unwatered plot produced 1.8 tons per annum, and the yields on the other plots varied from 5.8 tons per acre to 8.55 tons per acre. The first 18 inches of water produced an increased yield of 80 cwt.; the second 18 inches of water, when a total of 36 inches was applied, was not nearly so effective; it gave a further increase of only 46 cwt. per annum. The first 24 inches increased the yield by 106 cwt., but an additional 24 inches (when a total of 4 feet was applied), gave a further yield of only 29 cwt.

This has an important bearing on the question whether a farmer who has a limited quantity of water available should apply it to a limited

area or to an extended area. Obviously it would be better to distribute it. It would be much more profitable to put 18 inches on 50 acres than 36 inches on 25 acres.

Not only did the yields vary with different quantities of water per annum, but the effects of the water varied with the rate of application, e.g., six waterings of 3 inches were more valuable than three waterings of 6 inches. The six waterings distributed over the season maintained a fairly steady growth, but the lucerne generally bore the dark-green appearance which indicates lack of sufficient moisture. Three waterings of 6 inches induced irregular growth because the crop was alternately surfeited and thirsty for water. The irregular growth resulting from infrequent waterings contributes to reduced yields.

It was found that 2 feet of irrigation water per annum was necessary for best results, but that does not set a limit to the amount of water which may be profitably used. The efficacy of the 2 feet of water varied according to the way it was used. Six lots of 4 inches produced a heavier yield than four applications of 6 inches or eight of 3 inches. Eight lots of 3 inches maintained uniform growth, but it would seem that 3 inches in an application is not sufficient to permit the water to penetrate the soil sufficiently. It must be remembered that the root zone, and particularly the space where the feeding roots are, is in that portion of the soil where favorable moisture conditions exist. While 6 inches in an application permeated the soil to sufficient depths, four irrigations were not enough to maintain even conditions; therefore, the best results were not attained in that way, but six lots of 4 inches showed good results because 4 inches of water apparently went into the soil deeply enough, and six waterings in the season was a desirable frequency.

With 30 inches it did not matter much whether it was given in five or six waterings.

For a year or two the plots receiving six applications of 6 inches and eight of 6 inches were fairly satisfactory, but eventually they began to thin out, and it should be stated that the quality of the hay produced on these heavily-watered bays was not as good as that from those receiving moderate waterings. It grew rankly, and with coarse stalks, and often after heavy weather the crop lay down, and was difficult to cut, and the dense growth induced a lot of yellow foliage.

The Right Time to Cut Lucerne.

An interesting matter in regard to watering lucerne is this: In judging the time to cut the crop many growers watch for the appearance of the blooms. It can be definitely stated that with moderate irrigations, i.e., from 18 inches to 24 inches per annum, the best time to cut is when the bloom is appearing, except at the beginning and end of the season, when it is not a reliable guide. At the appearance of the bloom it will be found on inspection that the shoots of the new crop are appearing at the base of the plant, but if irrigation water be withheld the plant will bloom and mature without the appearance of shoots, and if the watering be very liberal the new shoots will be well developed before there is a sprinkling of bloom.

It is obvious, therefore, that the appearance of bloom and the development of the shoots must be taken in conjunction when determining the time to harvest the crop.

Those growing lucerne for seed must irrigate carefully for best results. If the second cut be intended for seed, the land should be given a liberal watering after the first cut is off, and no more till just before the seed crop is ready to harvest. If the crop be watered during the later stages a new growth from the base of the plant will be promoted.

When to Irrigate.

Our experiments have established that a good practice to follow is six waterings of 4 inches. With proper management, at least five cuts can be obtained in the growing period, and the way to distribute the waterings is as follows:—Give one watering between the first and second cuts, two between the second and third, two between the third and fourth, and one after the fourth cut. This means a watering both before and after cutting, and it brings me to a consideration of a question often asked—Is it better to water before cutting or after cutting?

I hope I have made it clear that at least two waterings beween cuttings are desirable, except in cases where only one watering can be given, or in cases where one watering is sufficient because the ground absorbs so much, when it is probable that watering before cutting is the better. The work is more difficult then because the passage of the water over the ground cannot be followed so easily, and in showery weather it is very uncomfortable walking in wet lucerne. But if after cutting, the young shoots have sufficient moisture they make rapid progress, and there is that continuity of growth which is so desirable when we seek best results from lucerne hay. Watering after cutting cannot usually be carried out within a week of the date of cutting, but if the ground be moist at cutting time during the warm summer it prevents the lucerne from drying out too rapidly, and helps in the proper curing of the hay and the conservation of the leaves.

Watering after cutting means that there is a delay till the hay is removed and water is available. Generally no new growth takes place because the development of the crop just cut has exhausted the moisture from the previous irrigation.

A word or two in regard to the effect of different waterings on the life of the stand—I have alluded to the well-known fact that excessive water which lodges on the lucerne will kill it very rapidly, but comparing the effects upon the different plots I have described, we found that 3 or 4 feet of water per annum caused a thinning out of the lucerne. After the third season the other plots were relatively good; on the unwatered plot the plants were thick and hardy, although big crowns had not developed.

Points to Remember.

It is very difficult to deal properly with the big subject of watering lucerne in a short talk, but I want to stress a few points of practical interest to farmers:—

Good grading will help to secure a proper distribution of irrigation water and the development of even crops.

Lucerne must have sufficient moisture if full yields are to be obtained.

The soil should not be allowed to dry out between irrigations.

If lucerne is checked for want of water, subsequent irrigation will not renew the growth—fresh shoots will develop.

About 2 feet of irrigation water per annum will give good results. It should be applied in six waterings.

At least 4 inches should be given in an irrigation.

Excessive water will be wasted, and may cause damage to the plants. The quality of the hay is poorer and the life of the stand is shortened.

The appearance of the plants is the best guide as to when to irrigate. The lucerne should have a light-green colour.

Keep the lucerne growing without check through dryness.

DRIED VINE FRUITS.

REPORT OF THE IMPERIAL ECONOMIC COMMITTEE.

(Continued from page 689.)

Organization.

After describing the functions of the Australian Dried Fruit Association and the Commonwealth Dried Fruit Export Control Board, the report states South African growers and packers are in many cases organized in local co-operative societies, but there is no central controlling body such as is the case with fresh fruit, nor are the growers and packers specially represented in London.

There is no dominant organization of growers in Greece, partly no doubt because the Government, aware of the great national importance of the currant industry, already provides many of the advantages usually derived from organization. The numerous voluntary co-operative societies (of growers) are registered by the Government, and receive official recognition. They enjoy certain privileges not granted to individuals; they are granted rebates in taxes, particularly on commodities required for their vineyards or for their own use; and they also obtain loans at a specially favorable rate—even below bank rate. The Greek Government does not, however, confine itself to granting these various privileges. To cope with the problem of over-production it buys large quantities of fruit to be used in Greece for industrial purposes. During 1924 a special organization was established under Government auspices to dispose of the surplus production and to enforce measures to improve cultivation and curing of fruit. Under the Greek Retention Law a tax of 35 per cent. (known as the Land Tax) is imposed on exports permitted under the law. The tax is so applied that when yields exceed the world's requirements the full 35 per cent. is retained in kind. In years of smaller crops the tax may be paid wholly or partly in cash, but every year the tax is paid on a total of 35 per cent., either in fruit or in money.

In the United States of America most of the Californian dried fruit growers are members of the "Sun Maid" organization. Each grower is bound by contract to deliver all his fruit to the association. After delivery the fruit is pooled, and the association has entire control of every subsequent process until the fruit is sold.

Turkish growers are not organized in any way. There is no direct Government control, but it is understood that since the appearance of criticisms in the English press, Government inspectors have been paying more attention to the conditions under which fruit is packed.

In Spain there are no organizations of growers.

Finance.

After refering to the parts which the private merchants, the Commonwealth Dried Fruit Export Control Board, and the Commonwealth Bank, through its Rural Credits Department, play in the financing of the Australian dried fruit growers, the report points out that in South Africa the South African Land and Agricultural Bank has been established to provide finance on reasonable terms to all primary producers. The fruit grower can, through his co-operative society, obtain finance from the bank either on a mortgage on his farm for general expenses or for marketing his crops.

The financing of Greek dried fruit growers is entirely undertaken by the packing houses. The Currant Bank of Vostizza, Limited, with head offices in that town, was formed by the amalgamation of sixteen co-operative societies in that district for financing the crops.

In Turkey the financing of growers is entirely undertaken by the packing houses, who themselves export or sell to the local agents of United Kingdom importers.

In Spain the grower sells his crop direct to the merchants who undertake export.

In California, where the production and marketing are controlled by organizations, such as the "Sun Maid" Raisin Growers, the financing is undertaken by the organization.

Growers' Representative in United Kingdom.

The Australian Dried Fruit Control Board has a London agency representing growers, consisting of three members. The London Board, which possesses any powers which the Board in Australia may delegate to it, supervises the marketing of Australian dried fruit in the United Kingdom, and makes reports to the Control Board. At the present time, states the report, there are about 30 firms acting as import agents to the Australian growers, and "we are told that these importers vary greatly in their experience of the London trade. As prices for dried fruits vary by many shillings per cwt., according to buyers' views of quality, an appraiser is appointed by the London agency of the Board to value these grades. Although the fruit cannot be sold below the price which the appraiser fixes for it, we are informed that the appraisement is varied in accordance with the movements of the market. Fruit is not held off the market for higher prices, and, therefore, this system cannot be regarded as one of price control."

South African dried fruit producers have no representative watching their interests in the London market.

In the case of Greece and Turkey, most large packers have representatives in the United Kingdom, whose function it is to dispose of the fruit through brokers who sell to dealers. There is no general representative of the growers.

Spanish raisin growers have no direct representative in the United Kingdom market. The packers are represented only in so far as their clients in the United Kingdom keep them in touch with market conditions.

In the case of California, a special company representing the "Sun Maid" Raisin Growers was formed in the United Kingdom in 1922. The organization of the English company is in two sections—a sales and accounting branch and a general business branch. The sales branch has representatives in the various large towns, and travellers visit all parts of the country disposing of "Sun Maid" products. Very extensive advertising is also undertaken by the London company.

Regulation of Supplies.

The supplies shipped from California under the control of the "Sun Maid" organization to the United Kingdom can be, and are, regulated entirely at the will of that organization. Such regulation is exercised mainly or wholly with a view to the state of the United States of America market, and with little reference to United Kingdom requirements.

The Australian Dried Fruit Export Control Board is similarly capable of regulating supplies, but its circumstances are exactly the opposite of those of the "Sun Maid" interests. The United Kingdom market is the main market for Australian fruit, and, therefore, regulation of supplies, if attempted at all, must be done wholly with a view to the effect on the United Kingdom market. In practice, any regulation of Australian supplies can merely consist in accelerating or retarding the rate at which supplies are shipped in the light of the requirements of the United Kingdom market.

There is, in a sense, some Government regulation of Greek supplies in the manner described in the section "Organization." This has for its object the prevention of glutting in the world markets. So far as the Committee are aware, there is no regulation of the rate of shipment.

Methods of Sale in the United Kingdom.

In London the dried fruit trade (in currants, raisins, sultanas, and figs) is controlled by the "London Dried Fruit Trade Association"—an association formed for the protection of the interests of its members. Similar associations exist in Liverpool and Bristol, and all three are in close touch with one another.

The London Dried Fruit Trade Association is itself a combination of three subsidiary associations—

(1) The Importers' Association.
(2) The Brokers' Association.
(3) The Dealers' Association.

Although, in fact, the Importers' Association is an association of four other associations, it is substantially correct to describe it as an association of about 100 importers. Its members undertake to act

only as importers, and to sell all fruit which they handle through members of the Brokers' Association to members of the Dealers' Association.

The Brokers' Association consists of thirteen member-firms, who undertake to act only as brokers and to sell fruit belonging only to members of the Importers' Association. They may sell only to—

(*a*) Members of the Dealers' Association.
(*b*) Outside buyers who buy fruit solely for speculation, or merchants who buy for speculation.
(*c*) "Privileged buyers."

Outsiders who buy solely for speculation must resell through members of the Brokers' Association. As a rule no goods pass. The list of "privileged buyers" consisted originally of those firms with whom brokers insisted on maintaining direct relations when the Association was formed, over 30 years ago. It now contains the names of about thirteen firms—some of whom are large consumers of dried fruit. At the same time some other equally large consumers have been unable to become "privileged buyers." These latter firms have, therefore, the alternatives of buying their supplies in the country of origin and making all necessary subsequent arrangements for shipment and importation, or of buying from members of the Dealers' Association. The committee was informed that only the very largest consumers find it worth while to have their own buying agents abroad, and that, therefore, most firms have in practice no choice but to buy from members of the Dealers' Association.

At the time of sale from importer to dealer, brokers charge importers 1½ per cent. brokerage and dealers ½ per cent. brokerage, making a total of 2 per cent. Besides this charge there is a "draft" allowance of 2 lb. per cwt., which means in effect that when an importer sells 112 lb. of fruit, the dealer pays for 110 lb.

Although there are no association rules which forbid brokers to hold free auctions, nearly all sales are, in fact, conducted by private treaty, with the exception of sales of Valencia raisins. These are, very frequently, sold by public auction, at which, in practice, there are few or no buyers except members of the Dealers' Association.

The Dealers' Association contains 36 member firms, all of whom undertake to buy all their requirements of the dried fruits mentioned above only through members of the Brokers' Association, and not to make any direct importations. Dealers sell to secondary wholesalers or to the larger retailers. It is understood that there is no example of a dealer who deals in dried fruit alone. In every case dried fruit is merely one of the commodities which the dealer sells to his customers—a point of some importance, since a customer may on occasions decide that it is preferable to put up with some inconvenience in the supply of one article rather than dislocate his channels of supply for many other articles.

The Co-operative Wholesale Society is a very large purchaser of dried fruit. It is understood that this society purchases 75 per cent. of its dried fruit supplies direct from the country of origin. The method which it adopts is to send to Greece and to Turkey representatives of the Society as buyers, where they bargain with the packer for the purchase of lines of currants or of sultanas. The Society advances

in exchange for bills of lading up to 85 per cent. of the agreed purchase price, the balance being remitted as soon as the bulk has been approved after the arrival of the goods in the United Kingdom. Such purchases direct from the country of origin are exempt from the restrictions and charges of the Dried Fruit Trade Associations in the United Kingdom.

PRICES STRUCTURES.

The report contains detailed price structures from the point of primary sale in the United Kingdom back to the point of production in respect of Australian sultanas and currants. It must be remembered, the Committee states, that these prices structures are merely indicative of the results which are being obtained by producers and are necessarily only approximations.

AUSTRALIAN SULTANAS SOLD IN LONDON.

From Point of Primary Sale in United Kingdom to Producer.

			Per cwt.	Per-centage.
			s. d.	
Primary sale in London			65 0	100·0
	s. d.			
Charges in United Kingdom—				
Discount of 1½ per cent.	0 11·7			
Brokerage of 1½ per cent.	0 11·7			
Draft allowance of 2 lb. (per cwt.)	1 4			
Rent for storage (three months)	0 5·75			
London charges (incidentals, stamps, wharf charges, consolidated rate, sampling inspection, fire insurance)	1 2·7			
			4 11·85	7·7
Transportation costs—				
Ocean freight and insurance	(*a*) 4 9·5			
Rail freight and other charges in Australia	2 3			
			7 0·5	10·9
(*b*) Agent's Commission in Australia—4½ per cent.			2 11·1	4·5
Gross return to grower (see below)			50 0·5	76·9
			65 0	100·0

ANALYSIS OF GROSS RETURN TO GROWER.

	Per cwt.	Per centage.
	s. d.	
Costs after cultivation—		
Packing charges	5 6	8·5
(*c*) Costs of cultivation (including depreciation, rates, taxes, horse feed, and repairs, manure, spraying, harvesting, labour, &c.)	35 0	53·8
Net estimated return to grower	9 6·55	14·6
(See above)	50 0·55	76·9

(*a*) Based on freight rate of 70s. per ton measurement. The present rate is 50s. per ton.
(*b*) The Agent's Commission varies up to 5 per cent. on the f.o.b. value. The Committee have taken 4½ per cent. on the landed value as an average figure.
(*c*) The cost of cultivation of sultanas on the basis of 1 ton per acre has been variously estimated at from £33 to £38 per ton (i.e., an average of 35s. per cwt.). This scale of production (1 ton per acre) is a good average return An increased output per acre in a specially favorable year would reduce the cost of cultivation per cwt., whereas in an unfavorable year the cost would be materially increased.

Australian Currants Sold in London.

From Point of Primary Sale in United Kingdom to Producer.

		Per cwt.	Per-centage.
		s. d.	
Primary sale in London		35 0	.. 100·0
	s. d.		
Charges in United Kingdom—			
Discount of 1½ per cent.	0 6·3		
Brokerage of 1½ per cent.	0 6·3		
Draft allowance of 2 lb. (per cwt.)	0 7·5		
Rent for storage (three months)	0 5·75		
London charges (incidentals, stamps, wharf charges, consolidated rate, sampling, inspection, fire insurance)	1 2·7		
		3 4·55	.. 9·7
Transportation costs—			
Ocean freight and insurance .. .. (*a*)	4 7		
Rail freight and other charges in Australia ..	2 3		
		6 10	.. 19·5
(*b*) Agent's Commission in Australia—4½ per cent. ..		1 6·9	.. 4·5
Gross return to grower (see below)		23 2·55	.. 66·3
		35 0	.. 100·0

Analysis of Gross Return to Grower.

	Per cwt.	Per-centage.
	s. d.	
Costs after cultivation—		
Packing charges	5 6	.. 15.7
(*c*) Costs of cultivation (including depreciation, rates, taxes, horse feed, and repairs, manure, spraying, harvesting, labour, &c.)	27 0	.. 77.1
Estimated loss to grower	9 3.45	.. 26.5
(See above)	23 2.55	.. 66.3

(*a*) Based on freight of 70s. per ton measurement. The present rate is 50s. per ton.
(*b*) The Agent's Commission varies up to 5 per cent. on the f.o.b. value. The Committee have taken 4½ per cent. on the landed value as an average figure.
(*c*) The cost of cultivation of currants on the basis of 25 cwt. per acre has been variously estimated at £23 to £32 per ton (i.e., an average of 27s. per cwt.). This scale of production (25 cwt. per acre) is the normal return. In favorable years the productivity of some estates may rise to 40 cwt. In such cases this would reduce the cost of cultivation per cwt. on particular estates.

Packing in Cartons.

At the present time the bulk of the dried fruits sold in the United Kingdom is purchased by the consumer by the loose pound. An exception exists in the case of the "Sun-Maid" products, which are marketed in cartons bearing the name of the brand. Sale in cartons in this way has formed the basis of an extensive advertising campaign for the fruit. A certain amount of Australian dried fruit has recently been sold packed in a similar way.

The Committee regard the advantages of the carton packing of a certain amount of Empire dried fruit as sufficiently great to outweigh the possible disadvantages. Packing should, however, be carried out in the United Kingdom after the fruit has been imported in bulk,

as a long period of transport through the tropics in cardboard cartons would have a deleterious effect. They recommend that Empire dried-fruit producers should arrange for a certain amount of their better class sultanas and raisins to be sold in half-pound and one-pound cartons in the United Kingdom, but that such packing into cartons shall be carried out in the United Kingdom, and not in the producing country. They further recommend that these cartons shall bear an indication of the country of origin.

Identification.

All Empire dried fruit imported into the United Kingdom is packed in boxes clearly marked with the name of the country of origin. Boxes containing fruit from Greece, Turkey, and Spain are not necessarily so marked. It is understood that any one in the trade can state the origin of a particular consignment of fruit merely by an examination of its general appearance. Apart from this, however, the absence of the name of an Empire country on the case is conclusive evidence that the fruit is of foreign origin. In the case of "Sun-Maid" products, the trade mark "Sun-Maid" appears on the box in which the fruit is packed, and also on the individual carton when the fruit is sold packed in this form.

As already stated, except in the case of "Sun-Maid" dried fruit, and to a small extent certain Australian sultanas, dried fruit is sold by retail grocers by the loose pound. It is, therefore, frequently removed from the original box when exposed for retail sale in the grocer's shop, and the consumer has no way of identifying the origin of the fruit, except in the case of the carton packs. The retail grocer, however, is always in a position to state whether the fruit he offers for sale is of "Empire" or "Foreign" origin. The Committee, therefore, recommend that, in the case of dried currants, raisins, and sultanas, the retailer shall be required to distinguish between "Empire" and "Foreign" fruit exposed for sale, by exhibiting on the fruit tickets indicating whether they are of "Empire" or "Foreign" origin.

In the case of dried fruit sold in cartons, they recommend that the name of the country of origin shall be printed on the carton, and that, when dried fruit is packed into cartons in the United Kingdom, the words "Empire" or "Foreign" should also be boldly printed on the carton. Where the dried fruit is imported in cartons, the name of the country of origin should be on the carton at the time of importation. Where the dried fruit is packed in cartons in the United Kingdom the responsibility for seeing that the name of the country of origin is on the carton should lie with the individual or company who breaks the bulk of the original supply and repacks the fruit into the cartons. When these cartons are exposed for sale in the retailer's shop it will be necessary for the retailer to exhibit, in addition to the name of the country of origin on the carton, the usual label indicating that they are of "Empire" or "Foreign" origin.

Advertisement.

A convincing example of the efficacy of advertisement of dried fruits has been given by the sales of "Sun Maid" fruit. The fruit has been represented to the Economic Committee as being quite

definitely inferior in quality to Empire fruit, to sultanas from Smyrna, and to raisins from Spain. The large sales which have been made must, therefore, be attributed solely to salesmanship and to advertising. There has been some doubt whether sales have yet been large enough to repay the cost of advertising; but the fact remains that sales of dried fruits can be increased by this means. Moreover, states the Committee, the Dominions have a better article to advertise. So far, little advertising of Empire dried fruit has been attempted. In the autumn of 1925 the London agency of the Commonwealth Dried Fruits Board undertook a limited but intensive press campaign to popularize the idea of an Empire Christmas pudding, and distributed a large quantity of pamphlets, show cards, recipe books, and other advertising material. The Committee were informed that this campaign aroused widespread interest.

No general advertising has been undertaken on behalf of Spanish or Turkish dried fruit. Before the war some advertising was undertaken by the Greek Government to encourage the consumption of currants in the United Kingdom. Recently the Greek Government has resumed advertising in trade journals in the United Kingdom, and has distributed handbooks drawing attention to the methods of preparation of Greek currants, the country in which they are grown, and their nutritive value.

Research.

The research problems of the dried fruit industry differ, as might be expected, from those of the fresh fruit industry.

"The first set of problems is connected with production," the Committee states. "The Empire producer has to face large competing supplies, some produced by very cheap labour, and others the overspill of a huge protected home market. He can cope with these only by the utmost economy in efficient production and by quality, which in the vineyard requires the finest vines and the maximum yield per acre. Research in Australia is already directed to these ends, but we would recommend the Governments of Australia and South Africa to encourage the development of sustained and systematic research into the problems of production.

"The other set of problems is connected with preservation," continues the report. "One important problem arises through the presence of grubs in boxes of dried fruits when opened up on arrival in the United Kingdom. This is a defect which dried fruit from all sources may suffer, but its incidence is heightened by a long voyage through the tropics. We are told that in California fruit is fumigated before despatch to remedy this trouble. Fumigation after arrival in the United Kingdom has been found to destroy the grubs without in any way affecting the quality of the fruit. Further research is, however, required on this problem, and we would commend this question to the Executive Commission. To this body we would also commend the problem of the prevention of the sugaring of raisins.

"In view of the regulations issued by the Ministry of Health as to the quantity of sulphur to be allowed in raisins after 1st January,

1927, and of the preference which the United Kingdom trade manifests for light coloured sultanas (quite irrespective of the intrinsic quality) we would commend to the attention of the Executive Commission the necessity of research into methods whereby a light coloured fruit can be placed on the market without the use of sulphur." *

* In view of the suggestion of the desirableness of drying grapes without the use of sulphur, attention is directed to the article on Sultana Drying by the Cold Dip Process, which appeared in this *Journal* for December, 1925.

DISTRICT HERD-TESTING WORK.

An Address by W. J. Yuill, Senior Dairy Supervisor, broadcast through 3LO.

The dairying industry ranks second among the great rural industries of Australia. The annual value of its products is approximately £35,000,000, and quite an army of workers is engaged in the secondary industries, which are more or less dependent on it.

It follows, then, that any development in dairying, any improvement that can be made in the production of the herds of Victoria—and of Australia generally—must improve our credits abroad, and therefore benefit our secondary industries. Consequently, my subject, which has to do with the testing of our dairy herds with the object of improving the condition of the industry, has a definite interest to listeners-in, whether in town or country.

Aim of Herd-test Work.

The aim of herd-testing work is to enable the dairy farmer to control those factors which go to make success in dairy farm work. Herd-testing is designed to bring about improved production of milk and butter fat by the culling of the known unprofitable cows.

Herd-testing Systems.

There are two herd testing systems in Victoria, viz., (1) the Standard Herd Test, which deals only with the various pure breeds of cows, and is carried out entirely by the Department of Agriculture; and (2) the Herd-testing Association system, which deals with grade herds generally, but under which some pure-bred cows in members' herds are also tested. This work is carried out by the dairy farmers, whose district association is worked through a local committee.

My talk to-night deals entirely with the district association system.

District Association System.

This work was introduced into Victoria as recently as 1921, and in the period that has elapsed since, it has made remarkable progress.

There are at present, in Victoria, associations which will be testing during the coming season approximately 43,000 cows; and inquiries are being received from new centres for information regarding the work.

Of course, I am well aware that there are many dairy farmers who look upon this so-called new system as a fad, or new-fangled idea. Old practices die hard. Why, it is only as yesterday when Victorian wheat farmers spoke in similar terms regarding the application of superphosphate to wheat land, and to the system of fallowing. Poultry men spoke in the same way of the artificial system of incubation, and of the shedding system of poultry farming, while pig farmers who have been accustomed to the sty and trough system still decry automatic self-feeders and paddock feeding.

In the dairying industry, new systems have also come; and just as the laborious method of setting milk in dishes gave way to the creamery and to the home separator, so the old style of choosing and selecting dairy herds is being superseded by a system of testing wherein definite information of each cow's producing ability takes the place of supposition and doubt.

Some Facts Regarding the Work.

Of course it is only right that we should demand the credentials of any new system or innovation. What can we say regarding the credentials of herd-testing work? Where has it been well tried out? Unfortunately the time at my disposal will not permit me to produce extensive data. It must suffice for me to say that, in those countries which are Australia's keenest rivals on the English butter market—viz., New Zealand and Denmark—herd testing work has its greatest support, and is each year gaining ground.

It is long since Danish farmers first began to record the milk yields of their herds. They found that it was essential to know the butter-fat content of the milk, and also the cost of producing it. This led to the introduction of the herd-testing system, or "Control Societies," as they are called. They knew, as far back as 1895, that it cost up to 2s. 8d. to produce a lb. of butter-fat from some cows, while with other cows, under similar conditions, it cost only 6d. Many dairy farmers in Victoria have yet to learn this lesson.

During the 30 years that have elapsed, nearly 1,100 of these societies have been organized in Denmark, which is only about the size of the province of Gippsland. The number of dairy cows in Denmark is 1,340,000. Of this number, approximately one-third is under systematic test, and their average production is now stated to be 281 lb. of butter-fat per annum. Since the time of starting the first association, the production per cow in Denmark has increased by approximately 150 lb. of fat—actually about as much as our dairy cows are averaging in Victoria.

It would not be fair to make an unqualified comparison between the average production per cow in Victoria and Denmark; for there is a vast difference in the feeding system of the two countries. But is it not significant that the Danes have achieved this increase of 150 lb. of butter-fat per cow under their conditions, and in half a life-time? If the testing work had any weakness, surely the Danes would have discovered it! If it had only a doubtful value, surely these keen dairying people would not now be organizing new associations!

What is true of Denmark is true, in a lesser degree, of New Zealand. In Denmark, the number of cows under test is 33 per cent.; in New Zealand it is 11 per cent.; while in Victoria it is only 6 per cent.

Surely, then, if this work is so well supported in these leading dairying countries, as well as in Canada and the United States, we in Victoria cannot afford to neglect a factor so pregnant with possibilities of assisting our dairy farmers to improve their financial returns.

It will surprise many to learn that as great a difference as 1,000 lb. of buter-fat has been observed in the same herd between the production of the best six cows and the worst six of a previously untested herd. At 1s. 6d. a lb. for butter-fat, this difference represents £75, an amount that would purchase one of the best bulls of any breed, or would go a long way towards the cost of a silo.

Herd testing is not needed by a dairy farmer to ascertain the average production of his herd. A record of the aggregate amount of butter-fat sold for the season, divided by the number of cows milked, will supply the information. But with herd testing a farmer can tell, month by month, or at the end of the year, what a cow's value is as a milker. Actually each cow is running an account with his owner. The herd testing farmer is, therefore, in the same position as any other business man in this respect—he can watch each cow's account as the latter would watch the accounts of his various customers and clients.

If all Victorian dairy farmers were doing this, a very large number of cows would be sent to the butcher.

What Herd-testing Reveals.

Some dairy farmers, of course, contend that, by appearance and so on, they can tell the good producers in their herds, but testing reveals that many cows of the recognized dairy type fail badly, while frequently really consistently high producers do not conform to it in any way. Certainly some men are occasionally able to "sense" a good dairy cow, but even the keenest judges sometimes are astray in their judgment. There is only one infallible guide—that is the scales and tester.

Some little time ago, a cow was awarded several prizes as best dairy cow at a show in a well-known dairying centre. She was under test at the time, and although well tried out for several years in competent hands, she was found to be one of the worst producers on the farm, and was eventually killed for beef.

Quite recently, I was told by a recognized good judge of dairy cattle that he had purchased no less than 130 cows (mostly the best to be got at clearing sales) in five years. This number was culled to 50, which were entered in a Herd-test Association. After the first year's test 20 per cent. of them were found to be unsatisfactory producers.

While many say that type is a certain guide, others assert that a good dairy cow can be known by the colour or the "feel" of the milk, or by the yellow pigment in the skin. Some will swear by the cow with a large udder, the cow with a long thin tail, or maybe one with a good escutcheon. Only recently I was told of a farmer who could tell a good milker from the way she chewed the cud!

I can assure you that long thin tails, and short thick ones, are found on good and bad producers alike. Why, the best dairy cow of

the world, Melba 15th of Darbalara, had a tail which, together with the switch, did not reach to her hocks. The colouring matter in milk is a principle called carotin, and is not butter-fat. Milk may be rich in colour, but low in butter-fat content, and milk that lacks the rich colouring may be rich in butter-fat. Large udders may contain a preponderance of muscle tissue; milk secreting tissue is the essential factor in a heavy milking cow. Escutcheons are a doubtful guide.

Of course, all dairy farmers and cattle-breeders admire a typical dairy cow. But it is far more essential that she should be a profitable one. The only sound system of judging is the utilitarian one, viz., by the known record of milk and butter-fat, and keen hard-headed dairy farmers are now appraising values on this basis. At a recent clearing sale of tested grade cows, £8 was paid for one with a record of 180 lb. of butter-fat, while £25 was paid for another that had produced 400 lb. under like conditions.

Advantages of the Work.

The advantages of the herd-testing work are briefly as follows:—

1. It individualizes each cow, and is the only method of estimating the producing ability of each member of the herd.
2. It tests systems of feeding for milk production.
3. It tests the herd sire through the production of his daughters.
4. It creates higher values for proved cows and their progeny.
5. It shows positively that some system of milk recording and testing is essential to progress.
6. It will direct attention to loss through faulty separating. During last year a dairyman with a large herd discovered a loss of 15s. a day by the herd tester chancing to test the skim milk.
7. Herd-testing Association meetings can be utilized as a means of bringing district dairymen together, when local and general problems can be discussed.

Financial Assistance to Carry on Herd-testing Work.

The Government of Victoria, through the Department of Agriculture, is now helping the dairy farmers to carry on herd-testing work. A subsidy of approximately 50 per cent. of the administrative cost of an association is paid, provided certain conditions are observed.

All information regarding the organization of an association, together with the working conditions under which the subsidy is given, will be found in the official pamphlet, which will be posted from the Department to any address. Further, arrangements will be made for an officer to attend any organized meeting and assist with information in connexion with the work.

THE SCRUB BULL.

By A. J. Gill, Herd Tester, broadcast through 3LO.

The average annual yield of butter-fat by the dairy herds of Victoria is estimated to be 160 lb. per cow, and, therefore, it is probable that many herds produce very little over 100 lb. per cow. This year, in the Government Standard Herd Test for pure-bred cows, sixty-two yielded over 500 lb. of butter-fat each in nine months; two of them produced over 700 lb. each, and six gave over 600 lb. each. Last year the leading cow produced over 800 lb., and was giving 4 gallons of milk a day when her testing period ended.

Taking the price of butter-fat at 1s. 6d. per lb., the average mongrel cow, yielding 160 lb., earns for her owner £12 per year. A cow producing 800 lb. of butter-fat returns £60, and one giving 700 lb. butter-fat £50 per year.

On the one hand, the low yield is the result of careless haphazard methods of breeding with low-grade cows and a scrub bull. On the other hand, a high standard is reached by careful selection, testing, and breeding along certain defined lines. The pure-bred cow of to-day is the result of many years of patient study and selection, and has been evolved from an animal that gave sufficient milk to feed her calf for a few months only. We have now cows that give up to 10 gallons of milk per day, and are quite capable of feeding several calves for ten or eleven months. In the beginning men had different conceptions as to the correct conformation of the dairy cow, and so, according to their different ideals, our various breeds were founded. In order to keep these breeds pure, certain characteristics to be looked for in a breed were decided on, and the recording of pedigrees was instituted.

A slight knowledge of the laws governing breeding is very helpful to the farmer, who often wonders why a mongrel bull should not beget stock equal to that of a pure bred. The most important law is that of inheritance, or, as it is sometimes termed, the law of similarity. Like begets like; therefore, animals resemble their parents, and are dependent on their ancestors for their characteristics. Then there is what is termed the law of variation. Nature has decreed that no two animals shall be born exactly alike. Variation is very noticeable when different strains are crossed; it is also affected by environment. Again, there is always present that tendency to revert, i.e., to throw back to some ancestor. This tendency becomes very marked when mongrel and crossbred sires are used. It is to defeat the tendency to variation and reversion that our breeders are continually striving. To do this and to fix certain characteristics, inbreeding and line breeding are sometimes adopted. Inbreeding is the mating of animals closely related, such as sire and daughter, dam and son, and the term is applied generally to the mating of two animals each with over 50 per cent. of the same blood. By inbreeding certain characteristics can be intensified and fixed, and wonderful results may be obtained in a few generations. However, it must always be borne in mind that while inbreeding will intensify desired qualities, it will also magnify faults. Consequently closely related animals that are to be mated must be very carefully selected. Line breeding is the mating of animals belonging to the same

family but not having more than 50 per cent. of the same blood. For instance, a farmer finds that a certain bull which he is using is giving good results, and, requiring another, obtains one belonging to the same family to cross with the progeny of the first bull. This is line breeding. Line breeding is very popular amongst our breeders of to-day, and appears to be giving good results. As far as we know at present, it is the safest method that can be recommended to a beginner.

The longer any breed has been kept pure, the surer one can be that they will transmit their characteristics to their offspring. The more uniform the ancestry and the more restricted in number, the more uniform will be the resulting progeny. At an agricultural school in Europe some years ago, the experiment of reproducing some of the original types of cows was tried, and to do this breeds were crossed indiscriminately, so that the tendency to revert would become dominant and the progeny throw back to the primitive ancestors. It soon became evident that a few generations would suffice to destroy the work of centuries, and that very quickly the pure-bred milking stock of the day would degenerate into worthless animals, scarcely capable of feeding their young. I am sorry to say that this is exactly what 90 per cent. of our Victorian dairy farmers have been doing for several years—using mongrel bulls and building up mongrel herds—with the result that production has been growing less year by year. Let one visit our sale-yards, and there he will see too many animals with short deep necks, light bodies, light hindquarters, and very small udders; these are reversions to the primitive cow.

It is a matter of great importance to every farmer that his heifers shall be superior to their mothers; but, if he is using a scrub bull, from 80 to 90 per cent. of the resulting progeny will be inferior to their dams. In only one direction will a mongrel bull help a dairy farmer, and that is backwards. A mongrel bull, even though from a heavy milking cow, will never improve a herd, for he is not prepotent. By prepotency is meant the greater capacity on the part of one of the parents, as compared with the other, to transmit his or her characteristics to their offspring. The low yield of dairy cows throughout the State is due to the use of scrub bulls, and as long as farmers use such sires their herds will continue to deteriorate. It is a low estimate to say that the dairy farmers of Victoria are losing £3,000,000 sterling annually through the use of the scrub bull. In America, practically the same thing happened, and at one time mongrel bulls were very common there. In recent years an endeavour to discourage this has been made, and one of the methods adopted to educate dairy farmers has been to run pure-bred bull trains, and to present a good bull to a farmer in each district. In Denmark, forty years ago, before herd testing became general, it was found that if herds were to be improved the use of pure-bred sires was essential, and farmers who could not afford to purchase pure-bred bulls individually formed bull associations in order to obtain a good sire. There are now several Bull Associations in Denmark. These are subsidized by the Government, and in some cases an association owns two or three good bulls. This is one of the reasons why the Danes lead us in butter production. In Victoria, the scrub animal is common; in Denmark he is rare.

Putting the matter plainly if crudely, the blood of a bull will in a few years comprise half the herd. Every calf born gets 50 per cent. of its blood from the sire. A herd changes much quicker than most farmers realize. The average period of usefulness of a dairy cow is only from five to six years.

It is of very little use testing and culling if a scrub bull is used. The good done in one generation he will undo in the next. The Department of Agriculture realized some years ago that, if dairy farming was to be placed on a profitable basis, an effort would have to be made to increase production, and that the most effective way to improve herds would be by the introduction of good pure-bred sires from tested cows. Therefore, the Government Standard Herd Test was instituted. A dairy farmer can now go to herds that have been under test for years and select bulls from high producing families. When purchasing a sire, a farmer should always get one from a tested herd. It is never safe to purchase on the performance of a relative. One cow may be good, her half-sister by a different sire utterly useless. There are pure-bred scrubs as well as mongrel scrubs, and if one buys a bad pure-bred animal, every calf he begets will be a "dud." To the beginner, the choice of a good bull means all the difference between success and failure. A good pure-bred bull may raise the production of a herd in a few years to the extent of 100 lb. of butter-fat per cow, or, stated in money terms, £7 10s. Thus with a herd of twenty cows the annual income would be increased by £150. In the Government test this year, in one instance the daughter produced over 300 lb. of butter-fat more than her mother. Reckoning butter-fat as worth 1s. 6d. a pound, she earned in the year £22 10s. more than her dam. As the average Victorian cow earns only £12, you will be able to grasp the wonderful possibilities that exist for the improvement of our dairy herds, and the first essential to bring about this improvement is the use of good pure-bred sires from high-producing families. Apart from the immediate monetary gains as a result of buying a pure-bred sire, it has been noticed repeatedly that his little success gives a settler heart. He immediately becomes a better farmer, because he commences to take an interest in his herd. He grows feed for them, and, may be, resolves to have them tested. And, as the herd improves, the farm labour, even if not lessened in extent, ceases to be drudgery, for the work has become interesting, and the returns from it are such as to give the owner something more than that mere hand-to-mouth existence which too often brings with it despair. To many the cost of a pure-bred bull now appears to be a serious obstacle, but the increased returns from his first twenty or thirty heifers will more than pay his price. And, remember, good heifers are not to be obtained as cheaply in any other way.

Heifers sired by a bull the reputation of whose parents as milkers is guaranteed will be an even line and of good quality, and will bring in the sale-yard at least £2 each more than the progeny of a scrub bull. Even if a farmer is making vealers of his calves, it will be a payable proposition to keep a pure-bred bull; calves sired by pure-bred bulls are of better shape and weigh heavier than those by a scrub animal.

In the first year of the Victorian Government Test, the top cow yielded 388 lb. of butter-fat; the leading cow last year gave 843 lb.;

and the average yield of this year's winning herd was 580 lb. Such stock have reached this high state of efficiency by their owners continually aiming at higher standards. That is what all our dairy farmers must do. They must not be content with a herd averaging only 160 lb. of butter-fat. Such cows do not pay for their food and the labour involved. Farmers must make up their minds to own cows yielding 400 lb. per head yearly. A herd yielding 400 lb. of fat per cow, even when butter-fat is worth only 1s. 6d. a pound, would give a far better return than that from the average Victorian herd with butter-fat at 3s. per lb.

To the farmer wishing to improve his herd, my advice is—Get a good bull, and then improve your herd by testing and culling. .

The dairying industry is worth to this State approximately ten and a half millions sterling annually. In a few years we hope to see it worth twenty millions; but before this can be brought about the elimination of the scrub bull is essential. In Ireland legislation has been passed making the registration of bulls compulsory. There bulls are inspected, and any animal not up to a certain standard is condemned. Last year, as the result of the examinations, some thousands of bulls had to be got rid of. Some of the States in Australia are moving in this direction, and it will certainly be a decided blessing to Victoria when we can say good-bye for all time to the scrub bull.

PLANT ENEMIES AT OUR GATES.

An address by E. Meeking, Senior Fruit Inspector, broadcast through 3LO.

When Shelley, in one of his beautiful short poems, referred to the "desire of the moth for the star," he did not intend to suggest that the moth desired the whole star for its own uses. All the same, had he accused it of such stupendous greed, he would not have been very wide of the truth, as moths in the larval or grub stages of their lives possess a very ardent desire for many things on which the existence of civilized man depends.

At some time or another, we have all admired many beautiful moths and butterflies, as they flitted from flower to flower on a warm sunny day, or on a summer night when they indulged in a mad dance around lights in the street or in our house. How often do we realize on such occasions that practically all of these delicate-looking, seemingly innocent insects, are our deadly enemies.

Plants and plant products, foodstuffs of nearly every description, clothing, and many other articles associated with our every day needs, are included in their dietary list. The familiar slogan, "swat that fly," might well be adopted towards moths, and we should not only carry this into practical effect ourselves, but we should teach our children to do likewise.

Moths and butterflies, however, are not the only insects which should be placed on the black list. Many other insects pass their existence

in destroying our food and clothing, and even our houses. In addition to insects, many forms of fungus and bacterial diseases attack and destroy plants.

We must remember that these plant enemies carry on their work of destruction unceasingly by day and by night, and it is this sinister peculiarity, added to their power of rapid multiplication, which makes them such a menace to mankind.

Most countries are now alive to this danger, and have framed laws, and are expending large sums of money to combat plant diseases.

Australia is well to the fore in these matters, and laws are in force in all the States to provide for controlling plant diseases within the boundaries of each State, and for preventing the spread of diseases from one State to another. The Commonwealth has also passed legislation with the object of preventing plant diseases being introduced.

This talk will deal briefly with some of the serious plant diseases in overseas countries which have not yet become established in Australia, and the means adopted to prevent their importation. The question of preventing the introduction of diseases into Victoria from the other States will also be touched upon.

When we consider that many of the most serious plant diseases in Australia, which are costing each State hundreds of thousands of pounds in production loss, and control expenditure, have been brought in from outside countries, we can realize the importance of localizing and controlling these outbreaks, by the maintenance of a properly organized plant quarantine service, and of preventing the importation of other diseases.

Insect and Fungus Diseases yet unknown in Australia.

Amongst the serious diseases which are yet unknown in Australia, the following may be mentioned:—

Insects.

European Corn Borer, which attacks more than fifty different crops; Cotton Boll Weevil, which has caused in some seasons a loss equal to thirty per cent. of the total crop in the United States of America; Peach Borer; Gypsy Moth; Tent Caterpillar; Army Caterpillar; Army Ant; Colorado Beetle; Hessian Fly; Lucerne Flea; and many destructive species of Timber Borers.

Fungus and Bacterial Diseases.

Citrus Canker; Fire Blight of apple and pear; Apple Canker; Peach Yellows; Peach Rosette; Powdery and Warty Scab of potatoes; Curly Top of beet. Many diseases of cotton, tobacco, sugar cane, and forest and ornamental trees. Some of these diseases are costing the countries in which they are established, millions of pounds each year.

The Measures adopted to Guard against Introduction of Harmful Insects, &c.

No doubt many of you will be interested to know what is being done to safeguard this country against any such visitations. You may be assured that in this direction not only is a great deal being done at present, but that measures have been adopted for many years past,

to protect our primary producers in particular, and the community generally.

In 1896 the first Vegetation Diseases Act came into force in Victoria. This provided for the examination of all plants and plant products on their arrival, both from oversea countries and other Australian States.

A long list of prohibited insect pests and plant diseases was gazetted. This Act has been strengthened several times since by amendments. It is still in active operation so far as the control of plant diseases in the State, and the control of importations of plants from other Australian States, is concerned. Shortly after the passing of the Act, a staff of qualified inspectors was appointed, and has since been maintained at full strength requirements.

In 1909 the Plant Quarantine Act was brought into operation. This is a Commonwealth Act, designed to control the importation of plants, and so lessen the chances of the introduction of insect pests, plant diseases, and weed pests from abroad. By arrangement with the Commonwealth Government, officers of the Agricultural Department in each State assist in seeing that the requirements of the Act are complied with.

In addition to the Victorian Staff in Melbourne, officers are stationed along the interstate borders. The officers in Melbourne inspect goods arriving by sea from foreign countries, and on behalf of the State Government, they also examine those coming by sea and rail from other Australian States. In Victoria there are 25 men employed in this work, all of whom have qualified for their positions by examination.

A huge list, embracing all the most important plant diseases, insect pests, and weed seed pests, has been gazetted under the Quarantine Act.

Under the State Vegetation Diseases Act the plant diseases and insect pests have been gazetted, but the weed seed pests are dealt with under the Pure Seeds Act. The object of all these Acts is to prevent the importation of any insect pest or plant disease, by making all plants, many plant products, and all agricultural seeds subject to inspection.

The importation of some plants, likely to be infested with serious diseases, is absolutely prohibited from countries where these diseases are known to exist.

Any one purposing to introduce any plants or goods subject to inspection must give written notice to the Department. The plants or goods are detained and inspected at the wharf or other place when they are landed.

If they are on the prohibited list they are either returned to the country of origin or destroyed. If not on the list, and are free from disease, delivery to the owner is given. When plants are found to be diseased, they are ordered into quarantine and treated so as to destroy the cause of the disease.

Various forms of treatment are followed, such as fumigation, spraying, or dipping. In the case of packages of seeds in which there is found to be an admixture of seeds of noxious weeds, the latter are removed by a screening process performed by machinery.

The goods subject to inspection embrace a list ranging from the delicate orchid to the log hewn from the giant of the forest; from the seed of the pasture plant to the timber in the motor car case; from

the leaf in the cigar of the connoisseur to the delicate spices which flavour the dishes of the epicure; from the maize or the tapioca root intended for use in the manufacture of the chocolate dear to the heart of the flapper to the oats which eventually may satisfy the breakfast cravings of the hardy Scot.

All the articles mentioned, and many more, are subject to attack by diseases and pests.

Each year about one million and a quarter packages pass under the notice of the departmental officers. About one-third of these are imported from overseas, and two-thirds from other Australian States. Of course, a percentage only is examined.

The losses through insect pests and diseases in these consignments are enormous. Taking the goods examined under the Quarantine Act alone, we find that since 1909, a total of 9,900,882 packages have been imported. Of these, 479,568 were either totally rejected or were treated for disease. On a low estimate, the value of the rejected goods may be assessed at £3 per package, and the final loss may be estimated at 50 per cent. of the total. This gives a total estimated loss of £720,000 in a little over sixteen years, or an annual loss of £45,000. The losses on goods imported from other Australian States is at least as great, which gives an annual total loss of nearly £100,000. These figures, although representing only a small percentage of loss to this country from plant diseases and pests will serve to show that the fight against these enemies must be stern and continuous, and that unceasing vigilance is the price of safety for us all.

LINDENOW MAIZE VARIETY COMPETITION.

Report of Judge, L. C. Bartels, B.Ag. Sc.

The Maize "Variety" Tests conducted by the Bairnsdale Agricultural Society under the supervision of the officers of the Department of Agriculture, were repeated during 1925-26 for the third season, and have again suggested some very interesting lessons.

In the recent Test, 22 samples were submitted by growers and they exhibited considerable differences in yielding capacity and in type of maize produced.

The seasonal conditions were unusual in that there was a prolonged dry spell in late summer, and though the maize grew well in the early stages, development at seeding time was restricted by dryness. Late rains helped the later-maturing varieties to fill, but they did not come in time to benefit the early ripening plots, which had hastened to maturity and so were handicapped. The net result was that yields were

reduced considerably, but the ears produced were good and the late plants were not placed at such a disadvantage as in the two previous seasons.

Value of the Competition.

The competition permits a comparison to be made between the various strains of maize grown by different farmers at Lindenow. Because the seed is sown under similar conditions in plots side by side, the comparison under such circumstances is more valuable than where one farmer compares the crop on his farm with that on another, when differences in cultural operations, time of sowing, rate of manuring, previous treatment of the ground, &c., may all have an influence in modifying yields.

The 1925-26 Competition.

It is an interesting fact that in the 1925-26 competitions the three competitors first placed are the same three as occupied first, second, and third places in the 1924-25 season. Mr. J. S. Murphy shares first prize with Messrs. Telfer Bros., and Mr. H. James, from Orbost, is placed third with an exhibit of Golden Glow.

Messrs. Telfer Bros. pay considerable attention to the selection of their seed maize, and their consistent success in these competitions is evidence of the value of the work. The strain of maize which they present for trial has been evolved from a variety originally imported from America under the name of Goldmine. It had become impure through cross-fertilization, and at one stage had a considerable infusion of Red Hogan character, but the colour has been eliminated and it is now a golden yellow maize with rather a flinty endosperm. The variety is mid-seasonal, of medium height, stands fairly erect, and the plants are leafy. At picking time the ears were well filled, ripe, with good husk covering, and most of them were pendent. The yield was 44 bushels per acre.

Some time since Messrs. Telfer Bros. imported some Iowa Goldmine from the United States of America, and this has been tested in the Variety plots, but has not proved to be a very high yielder. I mention this because some growers have sought this seed thinking it to be the strain which stands out so prominently in the tests.

Mr. J. S. Murphy's maize is a mid-seasonal variety. The plants grew rather tall and stood erect. They were leafy and well matured at picking time; the ears collectively were good, on the plants they hung down and were well filled and ripe. They were easily husked, in some cases they were not well covered and some damage to the tips resulted. The thrashed grain was a moderately good sample, although irregular in size. The ears thrashed easily. Some white cores showed amongst the red ones. Like Messrs. Telfer's maize, the endosperm was flinty—yellow with a golden cap. In colour the sample was uniform.

Mr. H. James, of Orbost, has paid considerable attention to the work of maize improvement, and it is not surprising that the maize he submitted has yielded well. It was the Variety Golden Glow, which won him third place in the Test. His other entry, of Funk's Yellow Dent, imported two years ago, has not yet proved itself, although it sets the standard in regard to uniformity and purity.

During growth the Golden Glow plants appeared short to medium tall; a few strangers showed up; the plants were erect with rather sparse foliage; they matured early and at harvest time the ears were well filled and ripe, although they proved rather difficult to thrash. The grain was somewhat small but sound and uniform.

One may gather from the points for yield that many growers are on the right lines, but it would seem that an improvement might be effected if, in selecting seed, mid-seasonal strains were sought.

The weather conditions of last season were adverse to the early-maturing types; yet many of them showed to advantage. If one were judging the grain only in these competitions some of the poorest yielders would be placed at the top of the list, and, unfortunately, many of the growers do judge the seed mainly by its appearance in the bag. They seek a nice big starchy grain, and without doubt their exhibits reflect success in that direction, but generally the ears they grow are gross and inclined to late maturity. What the farmers want is maize that fills the bag and weighs well. So far the leading strains in the competitions have yielded grain with flinty endosperm, and the ears have been heavy in proportion to their size.

The Tests were conducted on the farm of Mr. T. W. Murphy, who actively co-operated in the work.

Details of Points Awarded Competitors.

Competitor.	Points Awarded.					
	Uniformity of Plot.	Character of Plant.	Character of Ear.	Freedom from Disease.	Yield.	Total.
Possible Points	**5**	**10**	**7**	**3**	**75**	**100**
1. Telfer Bros. (own selection)	4	8	6	2	75	95
2. J. S. Murphy	4	8	6	2	75	95
3. H. James (Golden Glow) ..	3	8	6	2	72	91
4. F. W. Smith (two) (Flat Red Selected)	4	7	5	2	70	88
5. Ross Bros.	4	7	5	2	70	88
6. C. Fountain	4	7	5	2	68	86
7. W. Poynton	4	9	6	2	65	86
8. Telfer Bros. (Iowa Goldmine)	4	9	5	2	66	86
9. T. W. Murphy	4	7	6	2	66	85
10. J. Keating	4	7	5	2	66	84
11. G. Ray	4	7	5	2	64	82
12. H. J. Hauschildt	4	7	6	2	60	79
13. F. W. Smith (No. 1) ..	4	7	5	2	61	79
14. F. W. Smith (No. 3) ..	4	7	5	2	61	79
15. J. D. Alexander	4	8	5	2	59	78
16. J. H. Evans	4	8	6	2	58	78
17. H. James (Funk's Y. Dent) ..	5	9	6	2	56	78
18. F. M. Murphy	4	7	5	2	60	78
19. F. W. Murphy (early selection)	3	7	5	1	60	76
20. W. Kerton	4	7	5	2	57	75
21. E. B. Martin	4	8	6	2	55	75
22. J. Lavell	4	8	4	1	47	64

Results of Manurial Trials.

Plot.	Yield of Grain. per Acre.	Check Yields.	Increase in Yield. per Acre.
	bushels	bushels	bushels
1. No manure	43·4	43·4	
2. Super 1 cwt. per acre (dribbled)	43·6	42·6	1
3. Super 1 cwt. per acre (dropped at hills) ..	37·2	41·7	−4·5
4. No manure	40·8	40·8	
5. Super 1 cwt. per acre (broadcast)	40·2	41·8	−0·9
6. Nitro Super 1 cwt. per acre	44·55	42·8	+1·75
7. No manure	43·75	43·75	
8. Market Garden Manure 1 cwt.	46·7	44·35	+2·35
9. Bone and Super 1 cwt.	46·1	44·95	+1·15
10. No manure	45·5	45·5	
11. Super 2 cwt. per acre	41·8	43·3	−1·5
12. Super 4 cwt. per acre	39·4	41·1	−1·7
13. No manure	38·8	38·8	
14. Nitrate of Soda 1 cwt.	46·9	39·2	+7·7
15. Ammonium Sulphate 1 cwt.	45·5	39·6	+5·9
16. No manure	40·0	40·0	
17. Super 2 cwt., Nitrate of Soda 1 cwt.	49·3	39·7	+9·6
18. Super 2 cwt. per acre, Nitrate of Soda 1 cwt., Sulphate of Potash 1 cwt.	48·3	39·4	+8·9
19. No manure	39·2	39·2	
20. Super 2 cwt. per acre, Sulphate of Ammonia 1 cwt.	45·1	37·55	+7·55
21. Super 2 cwt. per acre, Lime ½ ton per acre ..	39·8	35·9	+3·9
22. No manure	34·25	34·25	

FUTURE OF FARMING IN SOUTH AMERICA.

"We may expect that, in the future, much of the marvellous development that has taken place in the United States of America during the last half century will be duplicated to a considerable extent in the temperate regions of South America," writes Mr. L. M. Estabrook, Director of the World Agriculture Census, to be taken in 1930 by the International Institute of Agriculture, at Rome, after a two years' study of South American agriculture, during which time he was engaged in re-organizing the crop and live stock reporting service for the Argentine Republic.

Argentina, Mr. Estabrook says, has a cereal region as fertile and as large as the Corn (Maize) Belt of the United States, but only about 16.2 per cent. of it is in cultivation. Except for limited areas that are too wet, the whole region is ideal for crop production, and can be brought under cultivation merely by breaking the sod. The wet areas can easily be drained.

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STANDARD HERD TEST.

Report for Quarter ended 30th September, 1926.

In the following is set out the records of all cows which completed a lactation during the quarter. The number is 372, of which 246 qualify for the certificate.

The amount of butter fat required for qualification varies according to the age of the animal (up to 5 years at time of calving), the standards being as follow:—

Junior 2 year old (under 2½ years at time of calving)	200 lb. butter fat.
Senior 2 year old (between 2½ and 3 years at time of calving)	225 lb. butter fat.
Junior 3 year old (between 3 and 3½ years at time of calving)	250 lb. butter fat.
Senior 3 year old (between 3½ and 4 years at time of calving)	275 lb. butter fat.
Junior 4 year old (between 4 and 4½ years at time of calving)	300 lb. butter fat.
Senior 4 year old (between 4½ and 5 years at time of calving)	325 lb. butter fat.
Mature cow 5 years and over	350 lb. butter fat.

Owner.	No. completed Test.	No. Certificated.	Breed.	Name of Cow.	Age Standard.	Herd Book No.	Date of Calving.	Days in Test.	Milk last Day of Test.	Milk.	Average Test.	Butter Fat.	Standard required.	Previous Yields of Butter Fat in lbs.
									lb.	lb.		lb.	lb.	
W. H. Adams, Amey's Track, via Foster	1	1	Ayrshire	Maiden of Prospect Hill ..	Jr. 2 yrs.	12310	28.10.25	240	..	5,700	4·36	248·45	200	
H. Allez, Echuca West	5	4	Friesian	Gladfield D.P. Sunrise ..	Jr. 3 yrs.	App. 4	2.10.25	273	16½	7,777	3·85	299·75	250	
				Gladfield Peerless Posch ..	Jr. 2 yrs.	Vol. 7	15.10.25	273	13	8,019	3·27	261·97	200	
				Rockbank Pet 2nd	Mature	1371	18.10.25	273	7½	8,753	3·84	336·24	350	
				Gladfield D.P. Princess ..	Jr. 2 yrs.	Vol. 5	5.11.25	273	15½	8,094	3·90	315·31	200	
				Gladfield Maud Posch ..	Jr. 2 yrs.	Vol. 7	18.12.25	273	17	7,563	3·52	266·55	200	
J. Anderson, Lyndhurst	6	6	Jersey	Ruby Rose of Tarnpirr ..	Mature	12861	27.9.25	273	25	9,588	5·13	491·42	350	436, 418
				Rosella 11th of King's Vale ..	Jr. 2 yrs.	16591	6.10.25	273	14½	5,408	6·21	335·88	200	
				Dolly 4th of King's Vale ..	Jr. 2 yrs.	16583	12.10.25	273	12½	5,709	5·47	312·30	200	
				Linda 64th of King's Vale ..	Jr. 2 yrs.	16587	27.10.25	273	14	6,258	5·95	372·35	200	
				Brunette 18th of King's Vale	Jr. 2 yrs.	16581	20.11.25	273	11½	4,042	6·34	256·29	200	
				Viola 7th of King's Vale ..	Jr. 3 yrs.	14123	20.11.25	273	14½	5,385	6·38	343·76	250	311

STANDARD HERD TEST—*continued.*

Owner.	No. completed Test.	No. Certificated.	Breed.	Name of Cow.	Age Standard.	Herd Book No.	Date of Calving.	Days in Test.	Milk last Day of Test.	Milk.	Average Test.	Butter Fat.	Standard required.	Previous Yields of Butter Fat in lbs.
									lb.	lb.		lb.	lb.	
W. H. Atherton, Murraydale	2	1	Jersey	Letitia of Somerville ..	Sr. 3 yrs.	14045	28.9.25	273	9	3,975	6·36	251·82	275	248
				Rarity of Meadow Vale ..	Mature	10134	14.12.25	273	..	6,435	6·20	398·67	350	331, 397, 354
W. K. Atkinson, Swan Hill	21	18	Milking Shorthorn	Princess 2nd of Willow Park	Mature	12513	30.9.25	273	10	5,288	4·32	228·40	350	205, 240, 289
				Duchess of Willow Park ..	Mature	9429	7.10.25	273	21½	10,317	3·84	395·93	350	321, 338, 341, 366
				Blush of Willow Park ..	Mature	11069	8.10.25	273	33½	13,826	4·08	564·64	350	320, 368, 478, 494
				Blanche of Willow Park ..	Mature	9080	10.10.25	273	20½	11,672	4·16	486·08	350	322, 386, 362
				Countess of Willow Park ..	Mature	9250	11.10.25	273	14½	9,327	4·15	382·89	350	264, 330, 382, 359, 342
				Duchess 2nd of Willow Park ..	Sr. 4 yrs.	11452	11.10.25	273	15	8,112	3·78	306·81	325	220, 233, 218
				Trilby of Willow Park ..	Sr. 2 yrs.	14784	13.10.25	273	7	7,092	4·12	292·26	225	240
				Dulcie of Willow Park ..	Jr. 2 yrs.	..	19.10.25	273	17	6,810	3·94	270·06	200	
				Damsel of Willow Park ..	Jr. 4 yrs.	13408	22.10.25	273	..	10,302	4·39	452·10	300	338, 409
				Comet of Willow Park ..	Jr. 3 yrs.	..	1.11.25	273	12	6,276	4·19	263·21	250	214
				Princess 3rd of Willow Park ..	Sr. 2 yrs.	..	5.11.25	273	13½	6,690	3·88	259·44	225	
				Camelia of Willow Park ..	Jr. 2 yrs.	..	11.11.25	273	26½	9,252	4·15	383·93	200	
				Duchess 3rd of Willow Park	Jr. 3 yrs.	..	18.11.25	273	20	7,087	3·91	276·97	250	
				Princess of Willow Park ..	Mature	12510	5.12.25	273	25½	10,683	3·81	406·91	350	256, 368, 370, 346
				Dainty of Willow Park ..	Jr. 4 yrs.	13363	8.12.25	273	16	6,577	4·34	285·38	300	240, 283
				Cherry of Willow Park ..	Mature	9198	9.12.25	273	48	18,076	3·80	686·34	350	325, 474, 636, 597, 623
				Moss Rose of Willow Park ..	Sr. 2 yrs.	..	10.12.25	273	32½	10,239	3·96	404·41	225	
				Chance of Willow Park ..	Jr. 2 yrs.	..	12.12.25	273	19	6,403	4·56	292·21	200	
				Carnation of Willow Park ..	Jr. 2 yrs.	..	20.12.25	273	18	5,967	4·34	259·20	200	
				Princess 4th of Willow Park	Jr. 2 yrs.	..	22.12.25	273	18	6,816	4·22	287·93	200	
				Peggy of Willow Park ..	Jr. 2 yrs.	..	23.12.25	273	14½	6,178	4·47	276·23	200	
F. Austin, Lara	4	4	Jersey ..	Pansy of Timberton ..	Mature	10138	1.10.25	273	13½	6,649	5·65	375·82	350	444, 406
				Queen of Avalon	Jr. 3 yrs.	12867	20.10.25	273	13	5,055	6·05	305·86	250	214
				Mercedes Neatest of Avalon ..	Sr. 3 yrs.	12866	13.11.25	273	11	5,436	5·77	313·66	275	293, 302
				Mercedes Buttercup of Avalon	Jr. 4 yrs.	12864	26.11.25	273	13	6,572	4·66	306·53	300	279, 272
W. Axford, Camperdown	1	..	Jersey ..	Beauty of Warenda ..	Mature	11223	9.10.25	273	..	4,789	6·26	300·13	350	291

Standard Herd Test—*continued.*

Owner.	No. completed Test.	No. Certificated.	Breed.	Name of Cow.	Age Standard.	Herd Book No.	Date of Calving.	Days in Test.	Milk last Day of Test.	Milk.	Average Test.	Butter Fat.	Standard required.	Previous Yields of Butter Fat in lbs.
									lb.	lb.		lb.	lb.	
J. Baker, Gheringhap	2	..	Red Poll	Karong Lily 2nd	Sr. 3 yrs.	918D	13.12.25	240	..	4,890	5·21	254·94	275	243
				Karong Belle 3rd	Sr. 4 yrs.	916D	17.12.25	240	4	4,920	4·16	204·70	325	185, 237
J. J. Baker, Bannockburn	3	2	Jersey ..	Lady Grey 23rd of St. Albans	Sr. 3 yrs.	13325	28.9.25	273	14½	7,185	5·70	409·63	275	286, 358
				Goldfield Trixie	Jr. 2 yrs.	15449	13.11.25	273	23½	7,382	5·33	393·78	200	
				Trixie 2nd of Linden ..	Mature	7538	23.11.25	273	9½	7,116	4·86	346·06	350	419, 386
Mrs. I. Beard, Outtrim	1	1	Jersey ..	Merri Girl of Linga Longa ..	Jr. 2 yrs.	C.R.	19.11.25	273	4	3,561	6·00	213·63	200	
Mrs. A. Black, Noorat	2	1	Jersey ..	Noorat Gossamer	Jr. 3 yrs.	16217	10.10.25	273	15½	5,145	5·92	304·65	250	274
				Noorat Sunshine	Jr. 3 yrs.	16219	25.10.25	273	..	4,271	5·62	240·19	250	265
A. A. Broad, Sutton Grange	5	5	Jersey ..	Defender's Favourite of Boorene	Mature	9225	28.10.25	273	25	9,890	5·58	552·34	350	418, 381, 409, 450
				Princess 3rd of Grangelea ..	Jr. 4 yrs.	14130	6.11.25	273	23½	8,538	5·37	458·29	300	295, 378
				Daisy 2nd of Grangelea ..	Jr. 4 yrs.	14128	9.11.25	273	20	6,665	5·86	390·27	300	294, 393
				Princess 4th of Grangelea ..	Jr. 3 yrs.	15455	15.11.25	273	21	8,096	5·30	429·31	250	312
				Princess 5th of Grangelea ..	Jr. 2 yrs.	18448	28.11.25	273	20	7,445	5·55	412·88	200	
Burnbank Cheese Co., Dhurringile	1	..	..	Burnbank Sylvia Posch ..	Mature	1105	3.12.25	210	4	5,490	3·35	184·18	350	257, 349, 509
Capt. P. Chirnside, Oakleigh	2	2	Jersey ..	Molly Madeira of Brucedale ..	Jr. 2 yrs.	Vol. XIV.	10.10.25	273	17	5,133	6·89	353·67	200	
				Countess 3rd of Lesterfield ..	Jr. 4 yrs.	12164	14.11.25	273	14½	6,351	5·88	373·28	300	315, 386
J. Clyne, Upper Maffra West	3	3	Jersey ..	Cora 2nd of Elouera ..	Jr. 3 yrs.	13394	3.10.25	273	18	7,104	5·85	415·54	250	285
				Forty Winks of Elouera ..	Mature	10485	7.11.25	273	21	5,956	6·63	394·92	350	306
				Lassie of Elouera	Jr. 4 yrs.	12236	19.12.25	273	19½	6,582	6·21	408·81	300	401

STANDARD HERD TEST—*continued.*

Owner.	No. completed Test.	No. Certificated.	Breed.	Name of Cow.	Age Standard.	Herd Book No.	Date of Calving.	Days in Test.	Milk last Day of Test.	Milk.	Average Test.	Butter Fat.	Standard required.	Previous Yields of Butter Fat in lbs.
									lb.	lb.		lb.	lb.	
Cockbill Bros., Rockbank	3	3	Ayrshire	Fulham Virtue	Jr. 2 yrs.	13340	4.10.25	273	19½	6,948	4·64	322·58	200	
				Fulham Fashion	Sr. 3 yrs.	8900	13.10.25	273	6	9,333	4·04	377·24	275	352
				Fulham Verose	Jr. 2 yrs.	13339	21.10.25	273	27½	9,609	4·12	396·08	200	
D. E. Cook, Loch	2	..	Jersey ..	Daphne of Wattle Vale ..	Jr. 3 yrs.	16236	1.11.25	273	14½	5,562	4·31	239·49	250	
				Millie of Kelburn	Mature	9270	17.12.25	273	..	6,141	4·52	277·74	350	
A. H. Cooper, Trafalgar	2	2	Jersey ..	Silver Daisy of Tarara ..	Mature	9445	5.10.25	273	13½	6,708	5·55	372·31	350	298, 289, 278
				Sultana of Cloverfield ..	Jr. 3 yrs.	13744	6.10.25	273	14½	7,158	4·81	343·97	250	
H. Cowling, Mornington	2	2	Jersey ..	Vanilla 17th of Melrose ..	Mature	11783	7.11.25	273	28½	10,016	5·30	530·62	350	303, 481, 481
				Rarity XI. of Melrose ..	Mature	6944	21.11.25	273	..	9,585	5·33	511·10	350	365, 403, 334, 436, 512
E. A. Dennis, Swanpool	9	1	Jersey ..	Marie of Tarnpirr	Mature	6029	10.10.25	273	9½	5,850	5·84	341·86	350	282, 132, 266, 290, 324, 164, 406
				Lily 6th of Melrose ..	Mature	5552	19.10.25	273	13	6,070	4·90	297·53	350	314, 360, 472, 406, 423
				Foxglove 3rd of Tarnpirr ..	Mature	10493	22.10.25	273	11	5,764	5·99	345·04	350	265, 370, 358
				Beauty 2nd of Belgonia ..	Sr. 4 yrs.	14967	24.10.25	273	11	6,124	4·85	297·14	325	214, 269, 347
				Rita of Swansea	Jr. 2 yrs.	18686	20.11.25	210	..	1,905	5·05	96·16	200	
				Norah of Billabong ..	Sr. 2 yrs.	15024	22.11.25	180	..	1,965	4·83	94·96	225	214
				Hopeful of Swansea ..	Jr. 2 yrs.	C.R.	30.11.25	273	13½	4,027	5·33	214·79	200	
				Flower 13th of Melrose ..	Mature	13343	12.12.25	273	4	4,627	6·03	279·13	350	319, 340, 298
				Pastime of Tarnpirr ..	Mature	5164	17.12.25	240	4	3,840	4·85	186·39	350	289, 307, 239, 320, 213, 250
Department of Agriculture, Burnley	1	1	Friesian	Victoria Wedding Bell ..	Sr. 3 yrs.	999	4.11.25	273	17	8,441	3·68	310·79	275	239
	1	1	Jersey ..	Victoria Beauteous	Mature	10198	11.11.25	273	16	5,508	6·66	366·73	350	272, 412

STANDARD HERD TEST—*continued.*

Owner.	No. completed Test.	No. Certificated.	Breed.	Name of Cow.	Age Standard.	Herd Book No.	Date of Calving.	Days in Test.	Milk last Day of Test.	Milk.	Average Test.	Butter Fat.	Standard required.	Previous Yields of Butter Fat in lbs.
									lb.	lb.		lb.	lb.	
Department of Agriculture, Werribee	10	7	Red Poll	Pico	Mature	250A	28.9.25	273	19	8,325	4·07	338·76	350	279, 383, 387, 331
				Cutty Sark	Mature	383C	4.10.25	273	26	10,930	4·02	439·85	350	373, 424, 373, 376
				Victoria Stripe	Sr. 3 yrs.	723A	5.11.25	273	10	5,541	4·02	222·97	275	295
				Victoria Maple Leaf ..	Sr. 4 yrs.	719A	7.11.25	273	14	7,062	3·84	271·03	325	285, 321
				Victoria Magnolia	Jr. 3 yrs.	1246B	15.11.25	273	20	10,158	3·89	395·13	250	330
				Gelderlana A	Sr. 4 yrs.	387C	17.11.25	273	23	9,717	3·77	366·39	325	281
				Victoria Reparation ..	Jr. 4 yrs.	796B	18.11.25	273	27½	11,796	3·88	458·06	300	319, 400
				Victoria Red Seal*	Jr. 2 yrs.	Vol. IV.	4.12.25	240	20	6,450	3·77	243·26	200	
				Victoria Rose Regal ..	Jr. 4 yrs.	560AA	13.12.25	273	17½	7,390	4·14	306·24	300	181
				Victoria Badge	Jr. 2 yrs.	1143A	18.12.25	273	16	5,353	4·94	264·48	200	
	2	2	Friesian	Victoria Patchwork ..	Jr. 2 yrs.	1706	7.10.25	273	18	8,307	3·65	303·62	200	
				Dominion Coringa	Mature	380	12.10.25.	273	29	13,328	3·09	412·61	350	481, 460, 499, 484, 432, 439
H. Dettman, Kyneton	1	1	Jersey ..	Lady Betty of Ellimatta ..	Mature	9292	24.10.25	273	17	8,223	4·62	379·54	350	379, 386
Dickenson Bros., Sebastopol	2	2	Friesian	Ashby Pauline 5th	Jr. 2 yrs.	1540	28.9.25	273	21	6,292	3·72	233·92	200	
				Ashby Queenie 4th ..	Jr. 2 yrs.	1453	7.10.25	273	16	6,201	3·92	242·81	200	
Dookie Agricultural College	7	2	Ayrshire	Bloom of Medburn Grove ..	Jr. 3 yrs.	11577	27.9.25	273	6	5,404	4·72	254·88	250	205
				Coral of Dookie	Mature	3814	1.10.25	273	13	7,354	3·77	277·23	350	352
				Ditto of Medburn Grove ..	Sr. 3 yrs.	11579	17.10.25	210	4	4,440	4·13	183·49	275	256
				Dookie Pretty	Jr. 2 yrs.	14718	25.10.25	273	5½	4,454	4·27	187·36	200	
				Scotswood Question ..	Jr. 4 yrs.	10315	25.10.25	273	5½	6,651	4·85	322·81	300	210, 268
				Adella of Inverleigh ..	Mature	7706	2.11.25	273	6	6,816	3·47	236·36	350	267, 344, 381
				Dookie Pat	Jr. 2 yrs.	14716	30.11.25	240	4	2,505	5·18	129·72	200	
Dunbar Bros., Carlsruhe	1	..	Friesian	Strathardle Lady Ransome ..	Jr. 2 yrs.	2051	29.10.25	273	13	3,662	3·12	114·10	200	

* Sold before completion of test.

STANDARD HERD TEST—*continued.*

Owner.	No. completed Test.	No. Certificated.	Breed.	Name of Cow.	Age Standard.	Herd Book No.	Date of Calving.	Days in Test.	Milk last Day of Test.	Milk.	Average Test.	Butter Fat.	Standard required.	Previous Yields of Butter Fat in lbs.
									lb.	lb.		lb.	lb.	
S. Earle, Mericks	3	1	Jersey ..	Bell of Boorene	Mature	10139	27.10.25	273	..	5,078	5·30	269·21	350	174, 248, 281
				Gwen of Benguella	Jr. 2 yrs.	17425	1.12.25	273	12	3,981	4·75	189·28	200	
				Dainty of Benguella ..	Jr. 2 yrs.	17730	9.12.25	273	9	4,204	5·41	227·27	200	
G. Esler, Tongala	5	4	Jersey ..	Jubilee Dahlia	Mature	10451	29.9.25	256	4	7,251	4·53	328·63	350	148, 164, 236, 323
				Floss of Tuerong	Mature	10480	26.10.25	273	18	8,517	5·13	436·50	350	256, 290, 298, 358
				Patricia of Whitley ..	Jr. 2 yrs.	17732	14.11.25	273	21½	6,221	5·92	368·42	200	
				Canary of Tuerong	Mature	10479	22.12.25	273	23	8,131	5·39	454·31	350	265, 290, 288, 382
				Maiwand Flower	Jr. 2 yrs.	16254	22.12.25	273	4½	4,246	5·84	248·16	200	
T. R. Findley, Leitchville	1	1	Jersey ..	Lady Grey 22nd of St. Albans	Jr. 4 yrs.	13345	20.11.25	273	19½	7,080	4·94	349·97	300	226
W. G. Finn, Bundoora	4	2	Jersey ..	Science of Comely Banks ..	Jr. 3 yrs.	13350	5.10.25	273	7	6,132	5·30	325·23	250	342
				Tulip 2nd of Meridale ..	Mature	9358	11.11.25	273	13	6,877	5·08	349·08	350	305, 358, 407, 461, 441
				Foxglove of Comely Banks ..	Jr. 3 yrs.	13347	17.11.25	273	14	4,496	6·24	280·49	250	278
				Cherry of Comely Banks ..	Jr. 2 yrs.	17737	27.11.25	273	6½	3,084	6·16	190·02	200	
A. Fixter, jun., Boisdale	1	1	Jersey ..	Molly 3rd of Bellaire ..	Sr. 2 yrs.	17429	2.10.25	273	14½	6,138	5·37	329·91	225	271
W. A. Fixter and Son, Boisdale	2	2	Jersey ..	Creamy of Olivedale ..	Jr. 2 yrs.	18467	21.10.25	273	12½	4,575	5·90	269·73	200	
				Music of Olivedale	Jr. 2 yrs.	Vol. XIV.	3.11.25	273	10½	4,511	4·62	208·35	200	
Flack and Gamble, Berwick	5	5	Friesian	Ashlyn 71	Mature	1013	9.11.25	273	36½	13,308	3·85	512·67	350	421
				Leonora Canary	Mature	547	20.11.25	273	22½	12,897	3·68	474·98	350	343, 329, 324, 666
				Burnbank Bainfield Patch ..	Sr. 4 yrs.	1514	22.11.25	273	42½	17,060	3·56	608·14	325	390, 606
				Springfield De Kol	Mature	546	25.11.25	273	32½	15,270	3·99	609·77	350	355, 389, 408, 666, 665
				Monavale Amethyst Paxton ..	Mature	148	17.12.25	273	15½	10,777	3·83	413·11	350	365, 434, 466

STANDARD HERD TEST—*continued.*

Owner.	No. completed Test.	No. Certificated.	Breed.	Name of Cow.	Age Standard.	Herd Book No.	Date of Calving.	Days in Test.	Milk last Day of Test.	Milk.	Average Test.	Butter Fat.	Standard required.	Previous Yields of Butter Fat in lbs.
									lb.	lb.		lb.	lb.	
M. and W. A. Francis, Kilcunda	3	..	Ayrshire	Choice of Hillcrest	Jr. 4 yrs.	9081	27.9.25	273	4	4,843	5·10	247·13	300	153, 206
				Leila of Hillcrest	Sr. 4 yrs.	9083	29.9.25	240	4	5,880	4·63	272·38	325	189, 209, 260
				Countess of Hillcrest ..	Sr. 4 yrs.	9082	30.9.25	273	8	5,667	4·43	250·84	325	174, 224
G. Gange, Werribee	1	1	Ayrshire	Alice of Roseleigh	Jr. 4 yrs.	12104	15.10.25	273	22	10,530	3·89	409·69	300	305
J. L. Gardiner, Welshpool	2	1	Jersey ..	Lauristan Northern Princess	Jr. 2 yrs.	15493	12.10.25	273	..	4,247	3·90	165·70	200	
				Daisy Belle of Whare Roa ..	Jr. 3 yrs.	14152	11.11.25	273	15½	6,300	4·92	309·97	250	258
Geelong Harbour Trust, Marshall	12	2	Ayrshire	Gladys of Sparrovale ..	Mature	6355	5.10.25	273	19	7,248	4·21	304·95	350	278, 228, 273, 292
				Shamrock of Sparrovale ..	Sr. 3 yrs.	11048	7.10.25	273	8	4,851	4·35	210·95	275	203
				Bud of Sparrovale	Mature	9094	8.10.25	273	7½	5,032	5·19	261·24	350	239, 281, 272
				Beryl of Sparrovale ..	Sr. 3 yrs.	9039	9.10.25	273	23	7,953	4·63	368·17	275	215, 248
				Wildflower of Sparrovale ..	Jr. 3 yrs.	13507	9.10.25	273	15	5,097	4·68	238·71	250	
				Waratah of Sparrovale ..	Jr. 4 yrs.	9110	15.10.25	273	7	5,280	4·65	245·72	300	211, 224
				Amy of Sparrovale ..	Sr. 3 yrs.	9090	16.10.25	273	17	5,811	4·48	260·58	275	197, 254
				Rosalind of Sparrovale ..	Jr. 4 yrs.	9108	20.10.25	273	12	5,506	4·76	261·84	300	171, 236
				Shiela of Sparrovale ..	Jr. 4 yrs.	9109	25.10.25	273	19½	6,186	4·29	265·14	300	210, 234
				Blossom of Sparrovale ..	Mature	3885	29.10.25	240	4	6,510	4·57	297·73	350	266, 315, 307, 271, 286
				Mignonette of Sparrovale ..	Jr. 4 yrs.	9100	31.10.25	273	18½	6,234	4·84	301·79	300	181, 249
				Janice of Sparrovale ..	Mature	7312	17.12.25	273	13½	6,663	4·42	294·21	350	274, 336
Gibson Bros., Trafalgar	6	6	Jersey ..	Spring Daisy of Hillcrest ..	Jr. 2 yrs.	17744	14.10.25	273	16	5,226	5·49	286·70	200	
				Creamy 3rd of Lesterfield ..	Mature	9378	15.10.25	273	26½	8,913	5·64	502·63	350	482, 439, 544
				Attraction of Leathorne ..	Jr. 2 yrs.	16271	25.10.25	273	15½	5,132	5·48	275·69	200	
				Creamy of Leathorne ..	Jr. 2 yrs.	16273	26.10.25	273	19	6,663	5·41	360·53	2.0	
				Lynette of Leathorne ..	Jr. 2 yrs.	16276	31.10.25	273	16	5,317	5·50	292·27	200	
				Annie Laurie of Leathorne ..	Jr. 3 yrs.	16270	13.12.25	273	13½	5,296	5·81	307·49	250	302
R. Goodman, Kilmany	4	..	Ayrshire	Fancy of Roseneath ..	Sr. 3 yrs.	13513	5.10.25	273	11	4,690	4·43	207·68	275	217
				Floss of Roseneath ..	Mature	7333	21.11.25	240	4	3,960	4·27	168·92	350	232, 314
				Nightingale of Roseneath ..	Jr. 2 yrs.	13515	21.11.25	273	15	4,725	3·89	183·91	200	
				Starlight of Roseneath ..	Jr. 3 yrs.	13516	19.12.25	273	5	5,284	4·12	217·95	250	249

STANDARD HERD TEST—*continued.*

Owner.	No. completed Test.	No. Certificated.	Breed.	Name of Cow.	Age Standard.	Herd Book No.	Date of Calving.	Days in Test.	Milk last Day of Test.	Milk.	Average Test.	Butter Fat.	Standard required.	Previous Yields of Butter Fat in lbs.
									lb.	lb.		lb.	lb.	
A. W. Gorman, Alexandra	2	2	Ayrshire	Heather of Cathcart ..	Jr. 2 yrs.	12142	9.10.25	273	23	6,640	3·75	248·86	200	
				Madge of Cathcart	Jr. 3 yrs.	11078	13.10.25	273	22	7,810	4·34	339·22	250	299
O. G. Handbury, Toora	2	1	Jersey ..	Daisy 12th of Melrose ..	Mature	9876	27.9.25	273	12½	6,537	5·11	334·27	350	305
				Lassie Fowler 7th of Melrose	Mature	7542	29.9.25	273	13¼	8,027	5·43	436·03	350	339, 368, 486, 472, 497
F. Harrison, Frankston	1	..	Jersey ..	Francie of Somerville ..	Jr. 4 yrs.	15501	21.12.25	273	11	4,518	6·56	296·35	300	276
T. Harvey, Boisdale	3	3	Jersey ..	Empress of Jerseyholm ..	Mature	9393	14.10.25	273	8½	8,670	5·84	507·82	350	400, 524, 527, 596
				Sparkle 7th of Jerseyholm ..	Jr. 3 yrs.	13359	20.11.25	273	15	6,020	6·81	410·13	250	351
				Empress 3rd of Jerseyholm ..	Jr. 4 yrs.	10255	27.11.25	273	26½	8,557	5·59	478·02	300	396, 391
W. Henderson (share farm), Grasmere	4	..	Ayrshire	Brownie 7th of Carracoorte ..	Jr. 4 yrs.	9328	4·10·25	180	4	3,240	4·48	145·22	300	218, 199
				Rosebloom 7th of Carracoorte	Mature	9438	6.10.25	150	4	3,660	4·85	177·48	350	171, 260, 239
				Dahlia 3rd of Carracoorte ..	Sr. 4 yrs.	9343	8.10.25	150	4	3,495	4·29	149·91	325	73,237, 141
				Thelma 2nd of Carracoorte ..	Mature	4003	21.10.25	150	4	4,155	3·75	155·72	350	186, 127, 148, 308, 187
W. Henderson, Home Farm	2	1	Ayrshire	Lady Kendal of Gleneira ..	Jr. 3 yrs.	11749	28.9.25	210	4	4,155	4·57	190·06	250	
				Bunty 3rd of Carracoorte ..	Mature	9330	10.11.25	150	4	4,514	4·31	194·53	350	208, 341, 389
R. Henry, Euroa	1	..	Jersey ..	Bingle of Ilford	Mature	9452	27.11.25	273	16½	6,249	5·45	340·66	350	368, 351
E. H. Howlett, Morwell	3	3	Jersey ..	Venus of Banyule	Sr. 2 yrs.	11617	18.10.25	273	11½	6,543	5·55	363·26	225	335
				Lorna of Latrobe	Jr. 2 yrs.	16658	19.11.25	273	13¼	4,693	5·10	239·20	200	
				Starfinch 7th of Banyule ..	Jr. 3 yrs.	11609	29.11.25	273	..	6,574	5·01	329·30	250	324

STANDARD HERD TEST—*continued.*

Owner.	No. completed Test.	No. Certificated.	Breed.	Name of Cow.	Age Standard.	Herd Book No.	Date of Calving.	Days in Test.	Milk last Day of Test.	Milk.	Average Test.	Butter Fat.	Standard required.	Previous Yields of Butter Fat in lbs.
									lb.	lb.		lb.	lb.	
J. H. Huffer, Gormandale	2	2	Jersey ..	Rosebud 2nd of Brookfield ..	Mature	9617	10.10.25	273	11	9,413	4·73	445·68	350	348, 379
				Rosebud 2nd of Paradise ..	Sr. 2 yrs.	13798	17.11.25	273	..	7,094	5·65	400·86	225	399
W. Hurrey, Koonwarra	1	1	Jersey ..	Cream Belle 6th of Gnarbrook	Jr. 2 yrs.	17443	17.12.25	273	19½	5,878	4·76	280·07	200	
J. Hutchinson and Sons, Somerville	1	1	Jersey ..	Majesty's Primrose of Somerville	Jr. 2 yrs.	17763	13.10.25	273	..	6,522	5·22	340·55	200	
A. Joshua, Berwick	1	..	..	Bon Bon of Cloverfield ..	Jr. 2 yrs.	16291	8.11.25	240	4	2,408	5·68	140·12	200	
G. Kent, Archie's Creek	4	3	Ayrshire	Peggy of Woolamai Park ..	Mature	5275	30.9.25	273	14	7,347	4·44	326·17	350	224, 244, 267, 325, 307
				Pet of Woolamai Park ..	Jr. 2 yrs.	12358	21.10.25	273	19½	6,059	4·35	263·75	200	
				Princess of Woolamai Park ..	Mature	6478	21.11.25	273	20	8,790	4·12	362·40	350	253, 362
				Peeress of Woolamai Park ..	Jr. 3 yrs.	11156	29.11.25	273	12	6,474	4·19	271·23	250	237
P. K. Lawrence, Tarrawarra	6	5	Jersey ..	Moroccos Linda of Rainga ..	Sr. 3 yrs.	11560	28.9.25	273	11	6,033	4·68	282·09	275	266, 258
				Lily Lantry of Rainga ..	Sr. 3 yrs.	12955	6.10.25	240	4	5,385	6·57	353·78	275	285, 284
				Choirmaster's Queen of Rainga	Sr. 3 yrs.	12954	19.10.25	273	8	4,163	6·04	251·63	275	242, 228
				Rainga Morocco Royal Progress	Jr. 2 yrs.	15532	10.11.25	273	10½	4,140	5·46	225·95	200	
				Rainga Lily's Progress ..	Jr. 2 yrs.	15531	11.11.25	273	5½	3,810	6·27	239·04	200	
				Rainga Princess Progress ..	Jr. 2 yrs.	15533	18.11.25	273	13	4,806	5·69	244·49	200	
Mrs. E. M. Lennie, Tongala	4	3	Jersey ..	Myra 3rd of the Valley ..	Jr. 2 yrs.	18494	3.11.25	273	18	6,423	5·11	328·35	200	
				Tea Rose of Tarnpirr ..	Mature	10312	2.11.25	240	4	5,190	5·84	302·95	350	388, 312, 352, 399
				Merella of The Valley ..	Jr. 2 yrs.	17777	12.11.25	273	14	4,344	5·68	246·63	200	
				Linda 4th of The Valley ..	Jr. 2 yrs.	17776	13.12.25	273	..	5,776	4·80	277·00	200	

STANDARD HERD TEST—*continued.*

Owner.	No. completed Test.	No. Certificated.	Breed.	Name of Cow.	Age Standard.	Herd Book No.	Date of Calving.	Days in Test.	Milk last Day of Test.	Milk.	Average Test.	Butter Fat.	Standard required.	Previous Yields of Butter Fat in lbs.
									lb.	lb.		lb.	lb.	
Leongatha Agricultural High School, Leongatha	2	2	Jersey ..	Day Star of Woorayl ..	Jr. 3 yrs.	14937	28.9.25	273	16½	7,104	6·61	469·85	250	352
				Cream Star of Woorayl ..	Sr. 2 yrs.	14936	11.10.25	273	16½	6,231	6·26	390·22	225	282
C. D. Lloyd, Narrewarren	9	8	Jersey ..	Perree's Rye of Glen Iris ..	Sr. 3 yrs.	12967	27.9.25	273	12½	5,905	5·88	347·45	275	285
				Sweet Dream of Glen Iris ..	Jr. 2 yrs.	14177	7.10.25	273	..	4,292	6·16	264·19	200	
				Golden Dancer of Woodside ..	Mature	6397	11.10.25	273	14½	6,947	4·95	343·67	350	336
				Naldera of Woodside ..	Mature	14170	11.11.25	273	19½	7,525	4·96	373·42	350	293, 340
				Easter Daisy of Woodside ..	Mature	8227	17.10.25	273	15	7,367	5·41	398·25	350	407
				Cream Nut of Glen Iris ..	Sr. 4 yrs.	11564	20.10.25	273	18½	6,600	5·32	350·93	325	248, 238, 390
				Fern's Duchess of Glen Iris ..	Jr. 4 yrs.	12963	28.10.25	273	14	5,913	5·16	305·24	300	227, 312
				Sweet Fern 2nd of Glen Iris ..	Jr. 2 yrs.	14688	15.11.25	273	15	4,742	5·25	248·79	200	
				Stocking's Princess of Glen Iris	Jr. 3 yrs.	12968	8.12.25	273	..	5,013	5·29	265·06	250	268
H. N. Littledike, Werribee	1	1	Jersey ..	Clara Butt of Tarnpirr ..	Mature	10140	23.11.25	273	22	6,708	5·91	396·17	350	
J. G. Lobb, Tooradin	2	..	Ayrshire	Cloverleaf of Springfield ..	Sr. 3 yrs.	8869	18.10.25	240	4	5,055	4·19	211·96	275	221
				Bona Vista Woodbine ..	Jr. 2 yrs.	15045	9.12.25	273	..	3,391	3·83	129·76	200	
Longerenong Agricultural College, Dooen	8	1	Ayrshire	Madge of Longerenong ..	Jr. 2 yrs.	12433	10.10.25	273	14	5,955	4·09	243·34	200	
				Primula of Longerenong ..	Jr. 2 yrs.	12438	21.10.25	273	5	4,743	4·21	199·46	200	
				Gloria of Longerenong ..	Mature	9790	26.10.25	180	4	4,695	4·13	193·75	350	258, 288
				Starette of Fernhill ..	Mature	5949	30.10.25	273	11½	7,931	4·39	348·07	350	256, 281
				Dolichos of Longerenong ..	Mature	9789	31.10.25	240	4	6,705	3·86	258·48	350	244, 324
				Lantana of Longerenong ..	Jr. 2 yrs.	13821	31.10.25	273	7	4,148	4·45	184·53	200	
				Primrose of Longerenong ..	Jr. 3 yrs.	12437	7.11.25	240	4	4,620	4·35	200·88	250	266
				Star of Longerenong ..	Jr. 2 yrs.	13825	20.11.25	273	9½	4,359	4·29	187·21	200	
Mrs. L. Lowing, Tongala	1	..	Jersey ..	Lily 2nd of the Valley ..	Jr. 3 yrs.	16307	3.11.25	273	15	4,746	5·26	249·56	250	233

STANDARD HERD TEST—*continued.*

Owner.	No. completed Test.	No. Certificated.	Breed.	Name of Cow.	Age Standard.	Herd Book No.	Date of Calving.	Days in Test.	Milk last Day of Test.	Milk.	Average Test.	Butter Fat.	Standard required.	Previous Yields of Butter Fat in lbs.
									lb.	lb.		lb.	lb.	
H. Luxton, Whittlesea	4	4	Jersey ..	Hibiscus of Springhurst ..	Mature	9656	14.10.25	273	29	10,500	4·73	496·97	350	284, 416, 489
				Marie Antoinette of Aveley ..	Jr. 2 yrs.	18496	19.10.25	273	12	4,572	5·77	263·58	200	
				Lady Starbright of Brucedale	Mature	12882	20.10.25	273	11½	7,497	5·18	389·56	350	267, 335, 353
				Josephine of Aveley ..	Jr. 2 yrs.	18495	1.11.25	273	12½	4,661	4·65	216·78	200	
C. GordonLyon, Banyule	13	13	Jersey ..	Maitland's Petal of Elouera ..	Mature	9703	28.9.25	273	27½	9,106	5·44	495·67	350	375, 447
				Ettie 8th of Banyule ..	Jr. 2 yrs.	14182	29.9.25	273	23½	7,098	5·44	386·41	200	
				Velveteen 6th of Banyule ..	Jr. 4 yrs.	11615	6.10.25	273	12	6,670	4·90	326·80	300	310
				Princess 2nd of Banyule ..	Jr. 2 yrs.	14194	8.10.25	273	21	6,909	5·87	405·84	200	
				Silvermine 18th of Banyule ..	Mature	6080	19.10.25	273	24	10,410	4·86	505·65	350	358, 432, 449, 462, 607, 526
				Tiddlewinks of Banyule ..	Mature	11613	8.11.25	273	19½	7,923	5·84	462·42	350	441
				Silvermine 30th of Banyule ..	Jr. 2 yrs.	14196	11.11.25	273	20	6,104	5·08	310·14	200	
				Molly 18th of Banyule ..	Jr. 2 yrs.	14193	24.11.25	273	17½	6,294	5·57	350·73	200	
				Hawthorn 12th of Banyule ..	Jr. 2 yrs.	14185	7.12.25	273	21	6,283	5·80	364·27	200	
				Silvermine 27th of Banyule ..	Jr. 3 yrs.	11603	8.12.25	273	19	6,585	5·74	378·24	250	216
				Molly 17th of Banyule ..	Jr. 2 yrs.	14192	22.12.25	273	..	7,255	5·64	409·38	200	
				Molly 8th of Banyule ..	Mature	9499	25.12.25	273	33	12,019	5·03	605·10	350	304, 453, 538, 637
				Crescendo of Banyule ..	Sr. 2 yrs.	14181	26.12.25	273	24	7,990	5·61	447·99	225	329
M. Lyons, Bamawm	1	1	Jersey ..	Kyora Starbright	Jr. 3 yrs.	16308	29.11.25	273	19½	6,252	5·24	327·56	250	164
C. W. W. Macauley, Rochester	2	2	Jersey ..	Roseleaf of Taranah ..	Jr. 2 yrs.	C.R.	5.12.25	273	11½	4,177	6·98	291·72	200	
				Flower of Taranah	Jr. 2 yrs.	16717	6.12.25	273	21½	7,848	5·41	424·87	200	
J. McDougal, Byaduk	1	1	Jersey ..	May Queen 2nd of Parkview	Jr. 2 yrs.	17790	10.10.25	273	12	4,867	5·76	280·13	200	
T. J. McGalliard, Gelliondale	2	2	Friesian	Tarrawarra 57	Mature	1044	26.10.25	273	18½	10,305	3·62	373·34	350	269
				Riverbank Primus	Jr. 2 yrs.	1636	5.11.25	273	15	7,062	3·14	222·02	200	

STANDARD HERD TEST—*continued.*

Owner.	No. completed Test.	No. Certificated.	Breed.	Name of Cow.	Age Standard.	Herd Book No.	Date of Calving.	Days in Test.	Milk last Day of Test.	Milk.	Average Test.	Butter Fat.	Standard required.	Previous Yields of Butter Fat in lbs.
									lb.	lb.		lb.	lb.	
Estate of H. V. McKay, Sunbury	5	2	Ayrshire	Grace of Roseleigh	Mature	7301	15.10.25	240	4	6,075	3·81	231·29	350	297, 255
				Virtue of Ayrbrae	Mature	7565	20.10.25	273	8	6,417	4·51	289·29	350	188, 231, 225, 260
				Alice of Rupertswood ..	Jr. 2 yrs.	12595	12.11.25	273	16½	5,765	3·92	225·72	200	
				Daisy of Rupertswood ..	Jr. 2 yrs.	12596	21.11.25	273	15½	6,570	4·55	299·24	200	
				Linda of Medburn Grove ..	Mature	8303	30.11.25	273	21	8,031	3·96	317·93	350	284, 355, 394, 406
R. Maher, Tongala	2	2	Jersey ..	Jenny Lind 2nd of Rosemont	Jr. 3 yrs.	15551	28.9.25	273	14	6,239	5·93	370·12	250	352
				Jenny Lind of Rosemont ..	Jr. 4 yrs.	12091	25.10.25	273	..	6,077	5·50	334·25	300	239, 275
P. T. Maloney, Tongala	2	2	Jersey ..	Princess of Belgonia ..	Jr. 3 yrs.	13755	5.11.25	273	9	5,565	6·77	376·78	250	305
				Wattle of Springhurst ..	Mature	5408	9.12.25	273	17	12,291	4·69	576·03	350	287, 320, 292, 380, 476, 582, 552, 433
T. Mesley, Warenda	6	6	Jersey ..	La Charme of Warenda ..	Sr. 4 yrs.	10347	3.11.25	273	14	6,733	5·86	394·29	325	324
				Ragtime 2nd of Warenda ..	Jr. 3 yrs.	15560	11.11.25	273	20	8,172	6·09	497·75	250	448
				Gazelle 3rd of Warenda ..	Jr. 3 yrs.	15558	29.11.25	273	17	8,129	5·69	462·44	250	367
				Madrigal of Warenda ..	Jr. 3 yrs.	15559	30.11.25	273	16½	6,878	6·54	449·72	250	486
				Namesake 3rd of Warenda ..	Jr. 4 yrs.	15018	8.12.25	273	18	7,422	6·54	485·44	300	391
				Garenne 5th of Warenda ..	Jr. 3 yrs.	15557	19.12.25	273	19	6,190	7·07	437·42	250	385
W. Muhlebach, Batesford	2	1	Ayrshire	Holly's Queen of Strathey ..	Jr. 3 yrs.	12524	6.10.25	210	4	6,300	4·74	298·51	250	314
			Jersey ..	Pretty Belle of Wattle Bank	Sr. 4 yrs.	12184	8.10.25	273	13	6,314	4·59	289·90	325	338, 411
L. Orchard, Graham Vale	11	1	Jersey ..	Freezia of Jersey Vale ..	Sr. 3 yrs.	14226	2.10.25	273	11	4,697	5·59	262·43	275	265, 314
				Joyce of Jersey Vale ..	Jr. 2 yrs.	Vol. XIV.	4.10.25	273	8½	3,101	5·69	176·51	200	
				Dot of Jersey Vale	Mature	9589	5.10.25	273	7½	3,680	5·38	197·93	350	265, 289
				Tulip of Jersey Vale	Mature	10360	5.10.25	240	4	3,870	5·17	199·97	350	260, 275, 301, 295
				Daffodil of Jersey Vale ..	Mature	7220	13.10.25	264	4	3,906	4·97	194·69	350	229, 251, 251, 284, 241
				Iris of Jersey Vale	Sr. 2 yrs.	15580	13.10.25	273	5	4,344	5·54	240·83	225	245
				Lily of Jersey Vale ..	Mature	10356	13.10.25	273	4	4,479	5·10	228·30	350	178, 137, 223, 279, 248
				Snowdrop of Jersey Vale ..	Sr. 4 yrs.	11659	13.10.25	273	5	4,477	5·75	257·46	325	164, 285, 302
				Cora of Jersey Vale ..	Jr. 3 yrs.	15577	15.10.25	251	4	3,651	5·36	195·56	250	254
				Lily 2nd of Jersey Vale ..	Sr. 4 yrs.	11658	24.10.25	273	4½	4,395	6·13	269·49	325	146, 336
				Doreen of Jersey Vale ..	Jr. 3 yrs.	13763	31.10.25	273	8½	3,351	5·36	179·79	250	136, 209

STANDARD HERD TEST—*continued.*

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									lbs.	lbs.		lbs.	lbs.	
W. Parbury, Warburton	3	3	Jersey ..	Jessamine 2nd of Brookfield ..	Sr. 2 yrs.	15588	21.10.25	273	16½	5,555	6·30	350·11	225	
				Rosalind 6th of Brookfield ..	Jr. 3 yrs.	Vol. XIV.	5.11.25	273	9½	5,114	6·06	310·10	250	
				Golden Leaf 3rd of Brookfield	Mature	9601	10.11.25	273	14	6,593	5·49	361·69	350	
D. Peter, Heidelberg	5	4	Jersey ..	Dunalister Vanilla	Jr. 2 yrs.	18912	21.10.25	273	9	3,570	6·33	226·04	200	
				Dunalister Perree's Jersey Maid 2nd	Jr. 3 yrs.	13766	26.10.25	273	8½	4,065	5·82	236·72	250	268
				Dunalister Perree's Attractive	Mature	10410	24.11.25	273	..	6,216	5·81	361·27	350	387, 324, 350
				Dunalister Mannikins Perree's Attractive 4th	Jr. 3 yrs.	16327	8.12.25	273	7	4,238	6·02	255·07	250	271
				Dunalister Perree's Noble Czarina	Jr. 3 yrs.	16328	14.12.25	273	16	7,105	4·99	354·64	250	296
J. Phillips, Murraydale	4	4	Jersey ..	Hope's Surprise of Peri ..	Jr. 2 yrs.	17819	27.10.25	273	13	6,394	4·05	259·13	200	
				Jessie 11th of Ferntree Vale ..	Mature	9638	2.11.25	273	28	10,444	4·09	427·41	350	296, 384, 354, 412
				Carnation of Ferntree Vale ..	Mature	9637	17.11.25	256	4	7,353	5·14	377·60	350	274, 341, 269, 314
				Vanilla 18th of Melrose ..	Jr. 4 yrs.	13424	22·12.25	273	21	7,596	5·03	427·84	300	328, 401
J. and E. M. Phillips, Werribee	1	..	Jersey ..	Graceful Duchess 25th of Melrose	Sr. 4 yrs.	11778	29.9.25	273	6	5,268	5·31	279·65	325	240
J. Platfuss, Tongala	6	5	Friesian	Yorkshire Dominion Gracie ..	Jr. 2 yrs.	1723	27.9.25	273	25½	7,878	3·56	280·09	200	
				Greenvale Piebe Patch ..	Jr. 2 yrs.	1571	8.10.25	273	22	9,873	3·53	348·76	200	
				Greenvale Juno Rose 2nd ..	Sr. 2 yrs.	1570	11.11.25	273	32	10,209	3·42	349·20	225	
				Yorkshire Rosevale Ideal ..	Jr. 3 yrs.	1443	20.11.25	273	27	14,411	3·83	552·50	250	498
				Daffodil of Greenvale ..	Jr. 4 yrs.	App. 4	25.11.25	273	..	11,801	3·39	399·87	300	239, 340
				Yorkshire Oakwood Topsy ..	Jr. 4 yrs.	1726	21.12.25	273	19	8,662	3·43	296·48	300	295
R. Purnell, Moriac	2	1	Jersey ..	Lady Grey 31st of St. Albans ..	Sr. 2 yrs.	C.R.	15.10.25	273	10	5,437	6·06	329·74	225	292
				Woodruff Mystic Maid ..	Sr. 4 yrs.	10517	22.10.25	273	12	5,089	6·26	318·55	325	210, 227, 173

STANDARD HERD TEST—*continued.*

Owner.	No. completed Test.	No. Certificated.	Breed.	Name of Cow.	Age Standard.	Herd Book No.	Date of Calving.	Days in Test.	Milk last Day of Test.	Milk.	Average Test.	Butter Fat.	Standard required.	Previous Yields of Butter Fat in lbs.
									lb.	lb.		lb.	lb.	
Quigley and Bennett, Yinnar	1	1	Jersey ..	Kirsty 14th of Jerseyholm ..	Sr. 3 yrs.	12945	11.12.25	273	11	5,181	5·73	296·67	275	306
F. Raggatt, Euroa	2	1	Jersey ..	Lady Fowler of Rosemont ..	Jr. 2 yrs.	16720	29.11.25	273	..	4,099	5·77	236·61	200	256
				Florrie 3rd of Warenda ..	Jr. 3 yrs.	15556	21.12.25	240	4	3,780	6·27	236·84	250	
Miss H. E. Raleigh, Pakenham Upper	2	..	Jersey ..	Cora of Eloucra	Jr. 4 yrs.	12234	6.12.25	273	14	5,355	5·50	294·57	300	227, 334
				Daffodil of Goronga Farm ..	Mature	10436	27.12.25	273	15	5,133	5·33	273·44	350	320
R. Ralston, Mogloneby	5	3	Ayrshire	Picture of Ben Kell ..	Jr. 4 yrs.	10187	30.9.25	261	4	6,820	4·18	285·27	300	263, 215
				Pardon of Ben Kell ..	Mature	5753	14.10.25	273	12½	8,975	4·00	359·07	350	231, 335, 285, 299, 314
				Wanda of Ben Kell ..	Jr. 3 yrs.	11352	23.10.25	273	6	7,057	4·46	314·95	250	227
				Winnie of Ben Kell ..	Mature	6744	3.11.25	180	4	6,308	3·91	246·60	350	259, 379, 315, 313
				Peggy of Ben Kell	Jr. 3 yrs.	11349	6.11.25	273	13½	7,014	5·18	364·25	250	297
J. D. Read, Springhurst	1	1	Jersey	Medick of Springhurst ..	Sr. 3 yrs.	14251	6.10.25	273	24	8,193	5·21	426·94	275	349
W. S. Richardson, Riddell	1	1	Jersey ..	Golden Pariel 2nd of Boorene	Mature	11227	28.10.25	273	14	6,134	6·12	375·69	350	295
				Linda 58th of King's Vale ..	Sr. 3 yrs.	12857	28.10.25	273	5	3,618	6·25	226·05	275	
Miss S. L. Robinson	3	1	Jersey ..	Woodside Century ..	Mature	6404	30.9.25	273	17	5,328	6·19	330·04	350	
				Kyora's Anthem 2nd ..	Jr. 4 yrs.	13232	16.10.25	273	15	7,593	4·98	378·06	300	270, 308
				Kyora Anthem's Pearl ..	Mature	10465	14.12.25	273	7	3,867	5·81	224·68	350	
W. P. Rogen, Tatura	1	..	Jersey ..	Dunalister Mannikins Perree's Maid 2nd	Sr. 3 yrs.	16974	20.10.25	273	9½	4,523	5·25	237·53	275	

Standard Herd Test—*continued.*

Owner.	No. completed Test.	No. Certificated.	Breed.	Name of Cow.	Age Standard.	Herd Book No.	Date of Calving.	Days in Test.	Milk last Day of Test.	Milk.	Average Test.	Butter Fat.	Standard required.	Previous Yields of Butter Fat in lbs.
									lb.	lb.		lb.	lb.	
G. Rowe, Kardella	4	2	Jersey ..	Jessie 42nd of Melrose ..	Jr. 2 yrs.	17830	12.10.25	273	13	6,378	5·42	345·80	200	
				Handsome Pansy of Welbourne	Jr. 2 yrs.	17829	20.10.25	273	13	5,621	4·66	262·00	200	
				Sweet Pansy's Poppy of Welbourne	Jr. 4 yrs.	13387	11.11.25	273	10½	5,241	5·11	267·95	300	180
				Joy of Hillcrest ..	Mature	10468	3.12.25	273	9	4,527	5·43	245·85	350	205, 222, 207, 264
S. Russell, Tongala	2	1	Friesian	St. Alban's Lily	Mature	362	28.9.25	273	9	9,740	3·24	315·26	350	167, 263, 295, 247
				Springfield, No. 9	Mature	1071	24.12.25	273	49	15,652	3·12	508·33	350	357, 487, 575
W. A. Sandles, Mt. Best, via Toora	1	1	Jersey ..	Queenie of Franklin Park ..	Jr. 2 yrs.	16750	24.11.25	273	16	4,758	5·38	256·00	200	
A. Schier, Kernot	13	4	Ayrshire	Milkmaid of Inverleigh ..	Mature	5859	27.9.25	210	4	4,980	3·50	174·42	350	146, 222, 218, 174, 210
				Fay of Banyule	Mature	6764	28.9.25	273	13½	6,880	3·94	271·30	350	348, 344
				Scotswood Reason	Jr. 4 yrs.	10316	28.9.25	273	8½	5,901	4·20	247·79	300	189, 129
				Coilshield Fay	Jr. 2 yrs.	14061	30.9.25	273	8½	3,757	4·16	156·19	200	
				Boronia 2nd of Pine Grove ..	Mature	4626	9.10.25	210	4	5,490	4·34	238·00	350	269, 226, 281, 279, 239, 275
				Scotswood Fuchsia ..	Jr. 2 yrs.	14146	9.10.25	240	4	4,440	5·22	231·84	200	210
				Scotswood Mabs	Jr. 3 yrs.	11367	26.10.25	273	9	5,360	4·37	234·15	250	
				Scotswood Adeline	Jr. 4 yrs.	10291	29.10.25	273	9	7,019	4·09	287·38	300	234
				Scotswood Adroitness ..	Jr. 2 yrs.	15468	29 10.25	273	13	5,595	4·44	248·59	200	
				Scotswood Myra	Sr. 3 yrs.	14158	29.10.25	273	15½	6,272	4·20	263·45	275	196
				Myrtle 2nd of Pine Grove ..	Mature	4637	5.11.25	273	4	6,814	4·03	274·84	350	282, 264, 298, 308, 335, 364
				Scotswood Margot	Jr. 2 yrs.	14150	3.12.25	273	..	4,951	4·84	239·54	200	
				Scotswood Silver	Sr. 2 yrs.	15496	23.12.25	273	16½	5,197	4·42	229·63	225	
A. Schipalius, Kilmany	1	1	Jersey ..	Blossom 6th of Melrose ..	Jr. 4 yrs.	13420	6.10.25	273	18	7,095	5·75	407·76	300	333, 298
Smith & Sons, Woodend	1	1	Friesian	Halecote Oakleaf Fobes ..	Mature	600	23.11.25	273	35	19,260	3·60	693·07	350	299, 466, 642

STANDARD HERD TEST—*continued.*

Owner.	No. completed Test.	No. Certificated.	Breed.	Name of Cow.	Age Standard.	Herd Book No.	Date of Calving.	Days in Test.	Milk last Day of Test.	Milk.	Average Test.	Butter Fat.	Standard required.	Previous Yields of Butter Fat in lbs.
									lb.	lb.		lb.	lb.	
Simpson and Son, Lower Ferntree Gully	4	4	Jersey ..	Silverfinch of Banyule ..	Jr. 4 yrs.	12189	14.10.25	273	15½	6,647	5·32	353·60	300	226, 332
				Cinnamon of Cloverfield ..	Sr. 3 yrs.	13741	30.10.25	273	..	6,512	5·25	341·66	275	224
				Gaiety Girl 11th of Melrose ..	Mature	9442	30.10.25	273	..	6,438	5·95	383·31	350	249, 334, 337
				Eminent's Chloe 5th of Clarendon Eyre	Jr. 2 yrs.	16348	16.11.25	273	11	4,668	5·25	245·09	200	
O. J. Syme, Macedon	4	4	Friesian	Bainfield Topsy 13th ..	Mature	6212	3.10.25	273	28½	16,072	3·88	624·11	350	593
				Bainfield Sylvia Topsy 2nd ..	Jr. 4 yrs.	1458	3.11.25	273	25	12,518	3·83	479·45	300	
				Bolobek Antonio	Jr. 3 yrs.	1183	14.11.25	273	8	12,828	3·10	397·72	250	244
				Echo Sylv Belle	Mature	1256	19.12.25	273	23	14,511	3·78	548·05	350	566, 626
Telford Bros., Kyabram	1	1	Ayrshire	Daphne of Hyde Park ..	Jr. 3 yrs.	12861	27.11.25	273	6	6,669	4·37	291·41	250	356
R. Telford, Trafalgar	1	1	Jersey ..	Jess 6th of Clarendon Eyre ..	Sr. 2 yrs.	16339	13.12.25	273	24	7,579	4·73	358·14	225	
F. Trevaskis, Tongala	3	2	Jersey ..	Werribee Starbright 8th ..	Mature	6543	21.10.25	273	9	6,110	4·58	279·94	350	364, 327
				Beauty of Ballara	Jr. 2 yrs.	15635	5.11.25	273	5	5,312	5·56	295·27	200	215
				Joybell of Ballara	Jr. 4 yrs.	11721	19.11.25	273	9	5,891	5·66	333·39	300	248, 303, 279
J. F. Tuckey, Alberton	6	2	Ayrshire	Tregorland Tinkle	Jr. 2 yrs.	15602	29.9.25	265	4	3,777	4·60	173·64	200	
				Kite of Tregorland	r. 3 yrs.	14268	17.10.25	210	..	5,040	4·11	207·36	250	231
				Iris of Tregorland	Jr. 3 yrs.	14266	16.11.25	273	4	5,637	4·26	239·94	250	247
				Idea of Tregorland	Mature	6028	1.12.25	273	13	6,798	4·83	328.41	350	294, 416
				Kitten of Tregorland ..	Jr. 3 yrs.	14270	2.12.25	273	9½	5,922	4·40	260·60	250	261
				Irene of Tregorland ..	Jr. 3 yrs.	14265	14.12.25	273	15½	5,419	4·84	262·19	250	300
J. T. Tweddle, Sunbury	10	8	Friesian	Burnbank Inka Segis Catriona	Jr. 2 yrs.	1809	6.10.25	273	11½	6,334	3·68	233·36	200	
				Burnbank Jessie Posch Triumph	Sr. 2 yrs.	Vol. 7	8.10.25	273	19	7,831	3·35	262·29	225	
				Burnbank Inka Sylvia Violet	Mature	1106	21.10.25	273	4	11,355	3·93	446·53	350	297, 400, 578
				Burnbank Inka Segis Iona ..	Jr. 4 yrs.	1205	27.10.25	273	27½	14,867	3·12	474 50	300	268
				Burnbank Jessie Alcartra ..	Jr. 3 yrs.	1520	8.11.25	273	4½	7,214	3·66	264·10	250	347
				Rosevale Cordele Posch ..	Sr. 4 yrs.	1378	23.11 25	273	30½	13,563	2·81	381·65	325	371, 444, 539
				Winlaton Jean De Kol ..	Jr. 4 yrs.	1440	15.12.25	273	..	7,181	3·50	251.45	300	159, 259
				Westmere Pontiac Lassie ..	Jr. 3 yrs.	1713	17.12.25	273	7½	5,697	3·32	189·21	250	234
				Burnbank Pietertje Topsy ..	Jr. 3 yrs.	..	20.12.25	273	15	5,380	4·79	257·47	250	252
				Burnbank Woodcrest Segis ..	Mature	1085	24.12.25	273	13	12,223	3·69	451·25	350	386, 460, 549

Standard Herd Test—*continued.*

Owner.	No. completed Test.	No. Certificated.	Breed.	Name of Cow.	Age Standard.	Herd Book No.	Date of Calving.	Days in Test.	Milk last Day of Test.	Milk.	Average Test.	Butter Fat.	Standard required.	Previous Yields of Butter Fat in lbs.
									lb.	lb.		lb.	lb.	
A. Wallace, Bendigo	1	1	Ayrshire	Dewdrop of Glen Cooee ..	Sr. 2 yrs.	11491	13.10.25	273	10	7,197	4·14	298·18	225	230
Warragul High School, Warragul	3	1	Red Polled	Gipps Enid	Jr. 2 yrs.	1235A	10.10.25	273	18	6,011	4·16	250·04	200	
				Gipps Emmea	Jr. 4 yrs.	783A	14.10.25	273	8	6,812	3·73	254·09	300	164, 198
				Gipps Elaine	Jr. 2 yrs.	1280A	28.10.25	268	4	3,957	4·23	167·47	200	
H. L. Webb, Sunbury	8	7	Ayrshire	Full Bloom of Holly Green ..	Jr. 2 yrs.	12924	30.9.25	273	12	5,123	4·34	222·25	200	
				Countess of Holly Green ..	Sr. 3 yrs.	11494	6.10.25	273	4½	7,443	4·39	327·39	275	305, 340
				Lily's Queen of Holly Green	Sr. 4 yrs.	11495	19.10.25	238	4	8,625	3·95	340·75	325	252, 404, 388
				Merit of Holly Green ..	Jr. 2 yrs.	12925	25.10.25	273	17	6,821	4·24	289·22	200	
				Nesta of Holly Green ..	Jr. 3 yrs.	11500	1.11.25	273	17	6,906	4.51	311.78	250	277
				Quality of Holly Green ..	Jr. 2 yrs.	12926	8.11.25	273	15½	5,324	4·81	256·09	200	
				Modesty of Holly Green ..	Jr. 3 yrs.	11497	23.11.25	180	4	2,775	4·23	117·34	250	257
				Rosebloom of Holly Green ..	Mature	6957	17.12.25	273	15	9,018	3·66	329·82	350	301, 288, 318
S. K. Webb, Neerim Nth.	1	1	Jersey ..	Jessemia 16th of King's Vale	Sr. 3 yrs.	14117	26.11.25	273	18	5,976	6·07	362·53	275	261
A. C. Willis, Pachendale	1	..	.. ..	Morning Light of Clover Flat	Sr. 4 yrs.	13410	5.12.25	273	15	4,392	5·28	231·69	325	
J. Wills, Bacchus Marsh	1	..	.. ..	Pomahaka Snowflake ..	Mature	1138	14.12.25	273	18	7,855	3·80	298·48	350	260, 268
W. Woodmason, Malvern	7	7	Jersey ..	Jessie 39th of Melrose ..	Sr. 2 yrs.	15652	30.9.25	273	15	4,662	5·96	277·96	225	223
				Graceful Duchess 36th of Melrose	Jr. 2 yrs.	17881	5.10.25	273	15½	4,860	5.88	282.07	200	
				Gaiety Girl 15th of Melrose ..	Sr. 2 yrs.	16786	6.10.25	273	12½	4,763	6.10	290.24	225	217
				Jessie 43rd of Melrose ..	Jr. 2 yrs.	19036	13.11.25	273	16	4,773	6·25	298.41	200	
				Vanilla 11th of Melrose ..	Mature	7550	26.11.25	273	19	7,213	5·79	417·57	350	303, 362, 369, 424, 329, 419, 376
				Handsome Girl 12th of Melrose	Sr. 3 yrs.	19034	3.12.25	273	15	5,340	5·95	317·65	275	
				Graceful Duchess 37th of Melrose	Jr. 2 yrs.	C.R.	15.12.25	273	11½	3,799	6·13	232·83	200	

Samples of Milk of Cows in the Standard Herd Test being Tested in the Laboratory at the Department of Agriculture.
Testing is carefully carried out by a trained analytical chemist.

STALLION REGISTER 1926-27.

Under the "Horse Breeding Acts 1919-1925."

Part I.—Registrations prior to 30th September, 1926.

Cert. No.	Name.	Age.	Class.	Owner.	Address.
		Yrs.			
841	Abbeydeen ..	3	Light ..	Downey and Son, J. J.	Wallace
507	Abbott Again ..	5	Draught ..	Millard, L. ..	Condah Swamp
102	Abbot's Best ..	A	,, ..	Egan, Jas. ..	Bob's Camp, Barwite
487	,, Pride ..	A	,, ..	Gadd, W. H. ..	The Glen, via Wodonga
655	Abbotsford Champion	A	,, ..	Elphick, C. ..	Foster
397	Admiral Fyvie ..	3	,, ..	Mitchell & O'Brien	City Horse Bazaar, Melbourne
103	,, Howard ..	A	,, ..	Holland, W. G. ..	C/o Mills, P. B., Warracknabeal
490	,, Speary ..	A	,, ..	Hill, C. ..	Lascelles
489	,, Sperry ..	A	,, ..	Mathieson, D. ..	Waitchie
373	,, Sperry ..	A	,, ..	Sheehan, W. ..	South Muckleford
642	,, Wood ..	A	Light ..	Hunter, A. G. ..	Seymour
842	Adonis Parole ..	5	,, ..	Cochrane, T. J. D.	Pootilla
897	,, Pronto ..	4	,, ..	Cochran, E. B. ..	Doveton-street, Ballarat
335	Advance ..	A	Draught ..	Hahnel, C. F. ..	Timberoo South, via Walpeup
563	Aird Laddie ..	A	,, ..	Yeaman, Ed. ..	P. B., Echuca
488	Albion	A	,, ..	Oakes, Jas. ..	Nathalia
396	Alexander's Fabric	3	,, ..	Mitchell & O'Brien	City Horse Bazaar, Melbourne
336	Allan Stewart ..	A	,, ..	Baden-Hill, Mr. ..	Baddaginnie
509	Allandale ..	5	,, ..	Burdett, T. H. ..	Hopetoun
104	Almont M. ..	A	Light ..	Minns, J. ..	Melton
888	Almont of Rythdale	A	,, ..	Thompson, Jas. ..	Cowwarr
382	Almore	4	Draught ..	McFarlane, C. S. B.	Hopetoun
909	Alto Wood ..	3	Light ..	Hunter, A. G. ..	Seymour
491	Amanus ..	A	Thoro'bred	Young, A. and J. H.	Blackheath
258	Amyville Fashion	3	Draught ..	Williams, C. ..	Thornton
337	Angle Jack ..	A	Light ..	Hillas, C. F. ..	Double Gully, Tallangatta
799	Armadale's Elect	4	Draught ..	Colliver, R. V. ..	Koo-wee-rup
105	Ash Voyage ..	A	Light ..	Guthrie, Jas. ..	Broken River, Shepparton
392	Ashton Stamp ..	3	Draught ..	Mitchell & O'Brien	City Horse Bazaar, Melbourne
925	Athlete	A	Pony ..	Hobson, G. ..	Sale
106	Attraction's Champion	A	Draught ..	Morley, W. ..	Red Hill, Rutherglen
65	Avondale ..	4	,, ..	Loosemore, A. R.	Ultima
17	Avon Dale ..	5	,, ..	Fowler, E. ..	Anakies, via Geelong
380	,, Lea ..	A	,, ..	Leitch, Jas. ..	Wodonga West
564	Axedale Prince ..	A	,, ..	McDonald, J. ..	Ultima
565	Bando	A	,, ..	Sharp & Taylor ..	171 City-road, South Melbourne

STALLION REGISTER, 1926–27—*continued.*

Cert. No.	Name.	Age.	Class.	Owner.	Address.
		Yrs.			
544	Bangaroo Honour	3	Draught ..	Schulze, jnr., C. A.	Jeparit
93	Bannockburn ..	A	,, ..	Francis, G. W. ..	Lower Norton, via Horsham
566	Barney II. ..	A	Pony ..	Thomson, A. W.	Hamilton
864	Baron	A	Draught ..	Maguire, W. ..	Barwidgee Settlement, via Myrtleford
656	,, ...	A	,, ..	Deacon, J. ..	Sheep Hills
895	,, Alex ..	4	,, ..	Pearse, R. L. ..	Kewell North
94	,, Alexander..	A	,, ..	Miller Bros. ..	396 Flinders-street, Melbourne
850	,, Bombay ..	A	,, ..	Shiels Bros. ..	Youanmite P.O.
284	,, Brilliant ..	A	,, ..	Duthie, C. A. ..	Lorquon
42	,, Brilliant ..	5	,, ..	Murphy, M. P. ..	Rupanyup
492	,, Carlyle ..	6	,, ..	Roberts, W. ..	Yallawalla
478	,, Cedric ..	5	,, ..	Luckie, Geo. ..	Springhurst
631	,, Chief ..	3	,, ..	McIntyre, S. E.	P.B. No. 2, Condah
96	,, Clover ..	6	,, ..	Lord, J. ..	Boigbeat
851	,, Crawford ..	A	,, ..	King, L. J. ..	Quambatook
427	,, Dale ..	4	,, ..	Hancock, E. F. ..	Aubrey, via Warracknabeal
900	,, Douglas ..	A	,, ..	Petrie, John ..	St. Arnaud North
814	,, Douglas ..	5	,, ..	Buckley, T. ..	Romsey
32	,, Dundonald	5	,, ..	Hepworth, S. ..	P.B., Donald
567	,, Faithful ..	A	,, ..	Morley, D. R. ..	Nullawil
493	,, Fashion ..	A	,, ..	Burns, J. ..	Euroa
265	,, Fyvie ..	4	,, ..	Murphy, Con. ..	Benalla
97	,, Jock ..	A	,, ..	Lynch, M. ..	Hopetoun
98	,, Juno ..	A	,, ..	Wallbridge Pty. Ltd., T.	365 Flinders-street, Melbourne
887	,, Laddie ..	A	,, ..	McLennan, A. ..	Derrinal
495	,, Lee ..	6	,, ..	White, J. D. ..	Box 97, Minyip
448	,, Lee ..	A	,, ..	Beechey, J. ..	Terang
100	,, Major ..	6	,, ..	Krelle & Henke ..	Boolite
338	,, May ..	A	,, ..	Oberin, H. W. ..	Goornong
99	,, McLeod ..	A	,, ..	David Mitchell Estate	Lilydale
83	,, Munro ..	4	,, ..	Hicks, W. G. ..	107 Thistlewaite-street, South Melbourne
56	,, Newfield ..	4	,, ..	Jardine, W. ..	Rathscar
496	,, of Dalmore	A	,, ..	Henty, J. R. ..	Pakenham
474	,, Pettie ..	3	,, ..	Price, J. ..	Mologa
107	,, Prince ..	A	,, ..	Banko, R. P. ..	Simmie P.O.
48	,, Regulus ..	5	,, ..	Dolman, J. A. ..	Neilborough
109	,, Silk ..	A	,, ..	Cameron, K. ..	Warracknabeal
101	,, Stanley ..	A	,, ..	Cantwell, P. F. ..	Tooronga, Mt. Egerton
110	,, Stewart ..	A	,, ..	Day, R. ..	Nathalia
339	,, Style ..	A	,, ..	Browne, A. J. A.	Mona Park, Werribee
471	,, Victor ..	5	,, ..	Smith, A. L. ..	Caramut
195	,, Wattee ..	A	,, ..	Nagorcka, F. ..	Tarrington
340	,, Weerite ..	A	,, ..	Manifold, Jno. ..	Weerite
341	,, Wighton ..	A	,, ..	State Research Farm	Werribee

STALLION REGISTER, 1926-27—*continued.*

Cert No.	Name.	Age.	Class.	Owner.	Address.
		Yrs.			
894	Baron Willie ..	3	Draught ..	Phillips, J. M. ..	Congupna Road
363	Baron's Admiral	3	,, ..	Sullivan, L. ..	Halbury, S.A.
499	,, Favourite	A	,, ..	Cameron, K. ..	Warracknabeal
12	,, Hero ..	5	,, ..	Vanstone, A. & W.	Wandearah, S.A.
500	,, Idol ..	A	,, ..	Carmichael, jnr., J.	Mulwala P.O., N.S.W.
406	,, Pride ..	A	,, ..	Quinn, J. J. ..	Elmore
108	,, Reserve ..	A	,, ..	Bartlett, T. G. ..	Gerang Gerung
658	,, Royal Chief	A	,, ..	Parry, T. E. ..	Conooer Bridge
111	,, Star ..	6	,, ..	Oman, G.	Lismore
24	Baronet.. ..	4	,, ..	Thomas, jnr., F. C.	Galaquil
720	Barrabool ..	4	,, ..	Axford, J. ..	Terang
659	Basella	A	,, ..	O'Halloran, R. ..	Granya
867	Basil B... ..	A	Light ..	Riedell, W. A. ..	Tongala
792	Bay Harold ..	A	,, ..	Sutherland, A. ..	10 Palmer-street, Oakleigh
1	Beau Fils ..	6	Thoro'bred	Perp. Trustees Coy., Sydney, for late Mitchell, W. E.	Corryong
666	Bedouin ..	4	Light ..	Thomas, P. ..	Highbury-road, Burwood East
733	Bell Boy ..	A	,, ..	Turnbull, A. G.	Winnieburn, North Coleraine
852	Belmain Belmont	A	Draught ..	King, L. J. ..	Box 22, Quambatook
112	Belmont ..	6	,, ..	Poynton, J. T. ..	Ensay South
746	,, Again ..	A	,, ..	Creighton, W. A.	Alexandra
545	,, Print ..	5	,, ..	Egan, J. M. ..	Woodleigh
117	Belmont's Champion	A	,, ..	Sellers, E. ..	Berriwillock
20	Ben Lomond ..	3	,, ..	Galloway, Jas. ..	Majorca
188	,, Model ..	A	,, ..	Adams, H. ..	Yaapeet
617	Berkeley Bantam	A	Pony ..	Crozier, R. ..	South Morang
662	,, Bells ..	3	,, ..	Bell, J. T. ..	Gulf Station, Yarra Glen
524	Berwick Victor ..	5	Draught ..	McLeod, A. L. ..	Kyabram
266	Best Vale ..	A	Light ..	McMillan, J. ..	Mansfield
342	Billy Culloden ..	A	,, ..	McDougall, D. ..	Macarthur
866	Birdwood ..	A	,, ..	Riedell, W. A. ..	Tongala
118	Blackadder ..	A	Thoro'bred	Hoysted, H. F. & F. W.	Wangaratta
120	Black Diamond ..	A	Draught ..	Hooper, A. H. ..	Devenish
660	,, Imp ..	A	Pony ..	Wells, J. F. ..	Eskdale
267	,, Prince ..	A	,, ..	Gaudie, Thos. ..	Thoona
436	,, Wasp ..	5	,, ..	Wheelahan, E. ..	Ballan
504	Blackwood ..	5	Light ..	Pearce, W. M. ..	Wahgunyah
568	Blair's Choice ..	A	Draught ..	McInerney & Sons	Tongala, S.A.
119	Blue Bolt ..	A	Pony ..	Ellis Bros. ..	Nerrin Nerrin
343	,, Ribbon ..	A	Draught ..	McGrath, D. ..	Manangatang
502	Bobbie... ..	A	Pony ..	Barratt, E. ..	Traynor's Lagoon
274	,, Dillon ..	5	Light ..	Williams, W. R.	Castlemaine
81	Bob's	4	Draught ..	Allen, A. O. ..	Murrayville
344	Bobby	A	Pony ..	Officer, Geo. ..	Kilmorey, Woolsthorpe
121	Bobniak ..	A	Light ..	Clarke, H. F. ..	Miepoll, via Euroa
345	Bold Action ..	A	Draught ..	Culloden, L. ..	Jung

Stallion Register, 1926–27—*continued.*

Cert No.	Name	Age.	Class.	Owner.	Address.
		Yrs.			
747	Bold Agitation ..	A	Draught ..	Brooker, J. C. ..	Traralgon
854	,, Alex ..	A	,, ..	King, L. J. ..	Box 22, Quambatook
122	,, Arthur ..	A	,, ..	Galloway, Jas. ..	Majorca
896	,, Baron ..	A	,, ..	Pearse, R. L. ..	Kewell North
68	,, Boy ..	5	,, ..	Ramsay, N. ..	Newbridge-on-Loddon
47	,, Briton ..	3	,, ..	Dyke Bros. ..	Gre Gre Village, via St. Arnaud
858	,, Captain ..	A	,, ..	Werner, C. B. ..	Galah
62	,, Craig ..	5	,, ..	Collins, J. A. ..	Fenton's Creek
570	,, Lad ..	A	Pony ..	Williams, A. C. ..	Corop
571	,, MacGregor ..	A	Draught ..	McNaughton, W.	Walpeup
572	,, Prince ..	A	,, ..	Thomas, F. C., junr.	Blackheath
123	,, Rowan ..	A	Light ..	Hanrahan, D. ..	Ballan
426	,, Squire ..	3	Draught ..	Schmidt, G. E. ..	Kewell North P.O.
394	,, Success ..	3	,, ..	Mitchell & O'Brien	City Horse Bazaar, Melbourne
124	Bolwalla ..	A	Thoro'bred	Harris & Dunne	Warrnambool
346	Bon Wickliffe ..	A	Light ..	Ford, Jas. ..	Wickliffe
845	Bonnie II. ..	3	Draught ..	Price, R. ..	Wallacedale South
425	,, Arthur ..	4	,, ..	March, A. R. ..	Lah, via Warracknabeal
573	,, Baron ..	A	,, ..	Scott, R. N. ..	Kongwak
818	,, Belmont ..	A	,, ..	Watkins, J. T. ..	Euroa
151	,, Caesar ..	A	Light ..	Campbell, C. ..	Lubeck
424	,, Dundee ..	4	Pony ..	Cameron, A. ..	Box 99, Warracknabeal
468	,, Dundee ..	5	Draught ..	Price, J. ..	Mologa
125	,, Knight ..	A	,, ..	Gerrard Bros. ..	Mangalore West
395	,, Mark ..	A	,, ..	Fraser, W. C. ..	Yerong Creek, N.S.W.
347	,, Salisbury	6	,, ..	Feldtman, C. H.	Major Plains, via Goorambat
423	,, Viceroy ..	5	,, ..	Bunge & Sons, J.	Sheep Hills
868	,, Voyage ..	A	Light ..	Tanner, J. E. ..	Barnawartha
25	Bonny Don ..	3	..	Boyd, A. ..	Thalia
126	,, Mac ..	6	Draught ..	Hodges, W. ..	Macarthur
153	Boguhan Kennedy	A	,, ..	Mawson, W. ..	Cohuna
165	Border Prince ..	6	,, ..	West, N. S. R. ..	Corop
349	Bower Bank ..	A	Light ..	Comb, G. ..	Kooloonong
8	Bramhope Kelm	6	Draught ..	Hicks, G. ..	Miram
823	,, Parthian	A	,, ..	Lincoln, R. ..	Portarlington
350	Breastknot ..	A	,, ..	Moll, W. J. ..	Dimboola
202	Brewer's March ..	5	Light ..	Nunan, G. ..	Cobram
155	Brigham's Last ..	A	Pony ..	Baulch, P. E. ..	Orford, via Port Fairy
847	,, Pride ..	5	,, ..	Rogers, Wm. ..	Russell's Creek, via Warrnambool
351	Bright Bells ..	A	Light ..	Ritchie, S. R. ..	Thomastown
130	,, Star ..	6	Draught ..	Dyke Bros. ..	Gre Gre Village, via St. Arnaud
201	,, Treasure ..	5	,, ..	Thompson, M. ..	Yalca
352	,, Voyage ..	6	Light ..	Russell, J., junr.	Orbost
384	Brilliant Bold ..	5	Draught ..	Mitchell & O'Brien	City Horse Bazaar, Melbourne

STALLION REGISTER, 1926-27—*continued.*

Cert. No.	Name.	Age.	Class.	Owner.	Address.
		Yrs.			
398	Brilliant Day ..	3	Draught ..	Mitchell & O'Brien	City Horse Bazaar Melbourne
387	„ Morn ..	3	„ ..	„ „	„ „
465	Britons Bold ..	3	„ ..	Lennecke, F. W.	Detpa, via Jeparit
231	Brogyntyn Handyman	A	„ ..	Byrne, G. L, ..	Kewell North
131	Brown Brillant ..	6	„ ..	Bartlett, J. T. ..	Barnawartha
569	Buchlyvies Choice	A	„ ..	Westendorf, W. J.	Dimboola
132	Bundoran ..	A	Light ..	Graham, A. ..	Bacchus Marsh
663	Bungoona ..	A	Thoro'bred	Huon, R. E. ..	Rochester P.O.
383	Burnside Baron ..	3	Draught ..	Younger, H. C.	Greta
353	Bushlark ..	A	Light ..	Penaluna, W. H.	Boolarra
133	Bute Laddie ..	A	Draught ..	Cranford Bros. ..	Tatura
33	Byrnwood's Pride	4	„ ..	Hercus, A. T. ..	Hayanmi, via Mitiamo
134	Calland Dale ..	A	„ ..	Nicol, A. E. ..	Thoona
135	Canny	A	Thoro'bred	Griffiths, T. A. ..	Eleven Mile Creek, Glenrowan
664	Capitalist ..	A	Draught ..	Urquhart, A. K.	Boonerah, Hexham
497	Captain Black ..	6	Thoro'bred	Flannagan, J. ..	Omeo
665	„ Douglas..	A	Draught ..	Rodda, C. S. ..	P. B., Warracknabeal
645	Carlesberg Prince	4	„ ..	Freyne, E. ..	Kilmore
136	Carmichael ..	A	„ ..	Pearse, J. A. ..	Greta W.
734	Carmyle ..	5	„ ..	McKinnon, M. ..	Berriwillock
770	Castledale ..	5	„ ..	Ferguson, J. B...	Waubra
13	Cedric Dale ..	6	„ ..	Thomas, A. E. T.	Patchewollock
546	Cedric's Son ..	A	„ ..	Barber, S. ..	Birchip
156	Centredale ..	6	„ ..	Opie, J. ..	Werribee
667	Cherry Farm Standard	A	„ ..	Clifford, A. ..	Donald
137	Cherry Vale ..	A	Thoro'bred	Wright, Jos. ..	Apollo Bay
157	Chieftan ..	A	Draught ..	Glenn, J. ..	Sale
159	Cicero	A	„ ..	Lloyd, R. ..	Kyabram
362	Clan Campbell ..	4	„ ..	Newitt, G. ..	Sheep Hills
748	„ Fingon ..	A	Thoro'bred	Neds Corner Coy.	Mildura
160	„ Newton ..	A	Draught ..	Colson, E. V. ..	South Wangaratta
750	Claredon ..	A	Pony ..	Bennett Bros. ..	Coleraine
354	Clarendon II. ..	A	„ ..	Underwood, C. ..	Timboon
914	Clarey	A	„ ..	Jones, Jno. ..	Yarroweyah North
921	Clarion	A	„ ..	Thompson, W. H.	Yalca
161	Claymore ..	A	„ ..	Hanrahan, J. P.	Ballan
240	„ Junior ..	6	„ ..	„	„
239	Claymore's Pride	5	„ ..	Bromley, E. ..	Tungamah
503	Clyde Boy ..	A	Draught ..	Goldsmith, H. ..	Corack
251	„ Laddie ..	A	„ ..	Alexander, J. ..	Caniambo
853	Clydesdale President	A	„ ..	King, L. J. ..	Quambatook
422	Coast Guard ..	4	„ ..	Arnold, A. ..	Werrigar East
574	Cock Robin ..	A	„ ..	Croft, L. ..	Orbost
151	Coliban	A	„ ..	McNabb, D. C. ..	Morwell
505	Colonel Dale ..	A	„ ..	Lazarus, A. ..	Leitchville
838	„ Douglas ..	4	„ ..	Jorgenson, A. C.	Katyil
355	„ Garfield ..	A	„ ..	Millard Bros. ..	Deans Marsh P.O.
575	„ Young ..	A	„ ..	Morse, H. D. ..	Bridgewater
79	Coma Knight ..	A	Pony ..	Nicholls, C. A. ..	Horsham
723	Comet	5	Draught ..	Henderson, W. ..	Grasmere
356	Commodore Nut ..	A	Pony ..	Manifold, Jno. ..	Purrumbete-Weerite

Stallion Register, 1926-27—*continued.*

Cert. No.	Name.	Age.	Class.	Owner.	Address.
		Yrs.			
506	Commonweal ..	A	Draught ..	Holt, W. C. ..	Foster
357	Commonwealth ..	A	Light ..	Mathieson, S. ..	St. Helen's Plain, via Horsham
358	Conqueror ..	A	Draught ..	McKinnon, M. ..	Berriwillock
803	Cooring Dale ..	3	,, ..	Black, W. M. ..	Coldstream
919	Cornet	6	Pony ..	Lowe, Jno. ..	Casterton
512	Corrong Chief ..	4	Draught ..	Robins, C. T. ..	Hopetoun
508	Count Bingen ..	A	Light ..	Porker, M. G. ..	Pepper's Plains
815	Craig Athol ..	4	Draught ..	Lunn, W. H. ..	Romsey.
797	,, Avon ..	3	,, ..	Kennedy, M. ..	Winslow
625	,, Avon ..	4	,, ..	Walter, W. ..	Tatura
789	,, Lyon ..	4	,, ..	Rathjen, J. D. ..	Flynn
162	Craigielea of Aberdour	6	,, ..	Stewart, R. ..	Glen Tilt, Tolmie P.O.
837	Craigieright ..	5	,, ..	Jorgenson, A. C.	Katyil
855	Creeper	A	Pony ..	Brown, F. A. ..	Willung
510	Crighton's Tim ..	A	,, ..	Greaves, S. A. ..	Narre Warren
462	Crofthead Douglas	5	Draught ..	Davies, H. ..	Bellarine
163	Culloden ..	A	Light ..	Millard, A. ..	High-street, Kyneton
735	Cymbrel ..	A	,, ..	Hancock, S. ..	Poowong
164	Cymro Bach ..	A	Pony ..	McKenzie, C. B.	Yarram
752	Cyndette II. ..	A	,, ..	Rule, Mrs. M. G.	Red Bank, Stratford
820	Dalcampbell Cleve	A	Light ..	Baker, C. E. ..	100 Tinning-street, West Brunswick
58	Dalcrombie ..	5	Draught ..	Rumbold, J. ..	Laanecoorie
215	Dalmore ..	A	,, ..	Woods, H. ..	Bangerang
578	,, Again ..	6	,, ..	Todd, J. A. ..	Beulah
22	,, Dan ..	3	,, ..	King, W. H. ..	Berriwillock
751	,, Pride ..	A	,, ..	McAlpine, W. T., senr.	Lascelles
330	Dalmore's Choice	5	,, ..	Turnbull, A. G...	Winnieburn North, Coleraine
148	,, King ..	6	,, ..	Hodgson, R. ..	Jeffcott North
359	,, Pride ..	A	,, ..	McLean Bros. ..	Tempy
668	Dan Bells ..	A	Light ..	Gregerson, H. G.	Benalla
216	Dandenong ..	A	Pony ..	Ladlow, R. C. ..	Horsham
217	Dandy Duke ..	A	,, ..	Kong Meng Bros.	Longwood
669	,, Jim ..	A	,, ..	McDonald, E ..	Tangambalanga
798	,, Luck ..	4	,, ..	Johnson, Mrs. M. L.	Mernda
82	,, O ..	5	,, ..	Forsyth, J. ..	Murrayville
821	,, Premier ..	A	Draught ..	Zirkler, R. W. ..	Kerang
218	Darling's Comet ..	A	,, ..	Brock Bros. ..	Moe
753	Darriman ..	5	,, ..	McKay, L. ..	Giffard P.O.
916	Dave Douglas ..	3	,, ..	Schultz, B. ..	Ni Ni Well, via Kiata
257	David of Shetland Heights	3	Pony ..	Maclellan, Mrs. J.	241 Dandenong-rd., Windsor
511	Decorator ..	A	,, ..	Jennings, F. E.	Inglewood
736	Deck Top ..	A	Light ..	Mackin Bros. ..	Korong Vale
142	Desert Star ..	A	Pony ..	Mann, Albert ..	Walwa
904	Dick Alto ..	A	Light ..	Newhound, W. ..	Barnawartha
95	Didcyme of Penniwells	6	Pony ..	Maclellan, Mrs. J.	241 Dandenong-rd., Windsor
360	Digger	A	,, ..	Gladstone, Mrs. E. A.	Silver Creek, via Beechworth

Stallion Register, 1926–27—*continued.*

Cert. No.	Name.	Age.	Class.	Owner.	Address.
		Yrs.			
277	Dillon Bell ..	A	Light ..	Lewis, S. J. ..	Maldon
913	Dimboola ..	A	Thoro'bred	Rogers, W. ..	Russell's Creek, Warrnambool
361	Direct Argot ..	A	Light ..	Matchett, R. ..	Adelaide Hill Stud Farm, Bendigo
755	Dixie Wood ..	A	,, ..	Shillito, F. W. ..	Yendon
513	Don Alto ..	A	,, ..	Luckie, G. ..	Springhurst
824	,, Huon ..	A	Pony ..	Lyons, W. ..	Drouin P.O.
262	,, Marvin ..	A	Light ..	Rousch, J. ..	236 Nicholson-st., Footscray
219	Donald	A	Pony ..	Attiwill, W. E. ..	Hexham
283	Donald's Best ..	A	Draught ..	Kelly, D. ..	Kunat, via Lake Boga
737	Donnibristle ..	A	,, ..	Wilson, J. G., for trustees of Wilson Estate	Home Station, Milawa
220	Donvin Chimes ..	6	Light ..	Malfahey, J. D.	96 Lewisham-road, Windsor
739	Dorregal Chief ..	A	Draught ..	Olson, P. R. ..	Ultima
756	Douglas Chief ..	A	,, ..	Trewick, D. ..	Elmore
401	,, ,, ..	A	,, ..	Graham, C. A. ..	Box 48, Rupanyup
740	Drum Laddie ..	A	,, ..	Brunt, R. S. ..	Kyabram
579	Drumcross Radiant	A	,, ..	Dahlenburg, V. ..	Nhill
247	Drumore ..	A	Thoro'bred	McPhee, John ..	Merino
757	Drumry Equipment	A	Draught ..	Maher, J. ..	Tatura
221	Drysdale ..	A	,, ..	Crozier, W. ..	South Morang
670	Duke	A	,, ..	Thornley, E. A.	Kangalong, Hawkesdale
402	Duke Little Eyes	A	,, ..	Bowman, A. E. ..	Tallangatta
459	Dukemore ..	4	,, ..	Maxwell, J. E. ..	Hopetoun
580	Duke of Winton ..	A	Light ..	Bain, W. C. ..	North Winton
672	Dundonald ..	A	Draught ..	Adams, John ..	Box 16, Swan Hill
222	Dundonald's Chief	A	,, ..	Doherty, H. ..	Yandool, St. James
403	Dunure Blend ..	A	,, ..	Hehr Bros. ..	Woolert
375	Earl Direct ..	5	Light ..	McClelland, F. ..	Boort
407	Eastern Star ..	A	Draught ..	McLean, L. G. ..	Culgoa
673	Eaton Headlight ..	A	,, ..	Schneider, E. W.	Yulecart
410	Eaton's Pride ..	6	,, ..	Grey, Geo. ..	Branxholme
388	Ebony Stamp ..	3	,, ..	Mitchell & O'Brien	City Horse Bazaar, Melbourne
255	Eclypse ..	5	,, ..	McKinnon, A. ..	Walpeup
44	Eldorado ..	6	Thoro'bred	Healy, F. B. ..	Kaniva
270	Emerson ..	A	,,	Blair, A. S. ..	Box 30, Watchem
582	Erigator ..	A	Draught ..	Whinfield, R. ..	Bamawm, Rochester
774	Ettrick Dale ..	6	,, ..	Crawford, M. ..	Strathmerton
761	Everlasting Dale ..	5	,, ..	Pize, W. ..	Kyneton
514	Excel	A	Pony ..	Holt, W. C. ..	Foster
271	Fabrikoff's Heir ..	6	Draught ..	Cheesley, W. ..	Barnawartha
269	Factotum ..	A	,, ..	Grimmer, R. ..	Wickliffe
456	Famous Voyage ..	5	Light ..	McCallum, M. J.	Yarrawonga
80	Farmer's Pride ..	4	Draught ..	Gepp, H. W. ..	Kangaroo Grounds
39	Fashion Bow ..	5	,, ..	McKenzie, L. ..	Nandaly
6	Favorite Baron ..	3	,, ..	Morcom, J. ..	Tarranyurk
554	,, Bold ..	5	,, ..	Jeffrey, A. C. ..	Tallygaroopna West
78	,, of Pennivells	3	Pony ..	Maclean, Mrs. D.	Toorak
758	Federal Duke ..	A	Draught ..	Thompson, W. ..	Glenalbyn

STALLION REGISTER, 1926-27—*continued.*

Cert. No.	Name.	Age.	Class.	Owner.	Address.
		Yrs.			
223	Federation ..	A	Pony ..	Cannon, A. J. ..	Irriwillipe East
624	Field Rover ..	4	Thoro'bred	O'Keefe, J. ..	Shepparton
28	Fine View Baron Royal	3	Draught ..	Gibbins, W. H. ..	Galah
141	Finnimore ..	A	Thoro'bred	Brown, Jas. ..	Natimuk
674	Firebrick ..	A	Light ..	Higgins, P. ..	Heyfield
463	First Grattan ..	A	,, ..	Chisholm, J. ..	Cranbourne-road, Dandenong
869	,, Voyage ..	A	,, ..	Minns, W. J. ..	Melton
516	Fitzallan ..	A	Draught ..	Vaughan, S. P. ..	Nyam, via Warrnambool
583	Flash Jack ..	A	,, ..	Mason Bros. ..	South Cannum
286	Flashdale ..	A	,, ..	Black, W. M. ..	Coldstream
224	Fleuriste ..	A	Thoro'bred	Blackley, D. A...	Riddell
584	Foreigner ..	A	Pony ..	Ferrari, C. ..	Devondale
225	Foreman	A	Draught ..	Morton, E. ..	Drouin
411	Freedom ..	A	Light ..	Montgomery, J...	Milawa
409	Free Scot ..	A	,, ..	Robertson, T. ..	Moyne Falls, Macarthur
14	Friarsdale ..	A	Thoro'bred	Falkiner, O. ..	c/o Yuille & Co., Melbourne
641	Futurist ..	A	Pony ..	Allan, E. ..	Ondit
412	Galtee	6	Thoro'bred	Walsh, T. ..	Seaton-road, Glenmaggie
924	Gay Bold ..	A	Draught ..	Coates, V. ..	Mount Jeffcott
328	,, Willie ..	5	,, ..	King & Sons, D.	Rutherglen
413	Gazeeka ..	A	Light ..	Pearson, Jas. ..	Garvoc
741	General Favourite	4	Draught ..	Hall, W. ..	c/o Mrs. Heid, Drummartin-st., Sunshine
819	,, Garland..	4	,, ..	McKinley, H. ..	Rockford, via Woodend
585	,, Gordon ..	A	Light ..	Sharp & Taylor	City-road, South Melbourne
414	,, Keith ..	A	Draught ..	McLinden, P. J...	Salisbury West, via Inglewood
586	Gentleman Jack ..	A	Light ..	Matchett, R. ..	Bendigo
759	Gisborne ..	A	Draught ..	Umbers, C. E. ..	Sea Lake
675	Glen Alto ..	A	Pony ..	Frauenfelder, P. V.	Wodonga
587	,, Arthur ..	A	Draught ..	Thomson, H. K.	Springdale, Newlyn
203	,, ,, ..	5	,, ..	Alexander, J. ..	Caniambo
152	,, ,, ..	A	,, ..	Henderson, C. T.	Weatherboard
678	,, Direct ..	A	Light ..	Whitechurch, P.	Box 168, Mildura
453	Glengyle ..	4	Pony ..	Trimble, R. ..	Rutherglen
87	Glen Isla ..	5	Draught ..	Perry, F. ..	Corack L. B.
622	Glenlivet ..	3	,, ..	McCluskey, H. ..	Strathmerton
679	Glen Lloyd ..	A	Pony ..	Strachan, W. ..	Sharpe-st., Regent
763	,, Trustful ..	A	,, ..	Roth Bros. ..	Ensay P.O.
588	Gobbler ..	A	Draught ..	Walker, J. ..	Vite Vite
194	Gold Brew ..	A	Thoro'bred	White, J. ..	Dunkeld
920	,, Mauritius ..	A	Light ..	Potts, C. ..	Crosbie-road, Murrumbeena
836	,, Mint ..	4	Draught ..	Schulze, F. O. ..	Arkona
856	Golden Hue ..	A	Light ..	Bridgeman, T. ..	Alvie
638	,, Simmer ..	5	Pony ..	O'Brien, M, ..	Hamilton
680	Governor Bracey	A	,, ..	Ferguson, D. ..	Lower Crawford, via Heywood

STALLION REGISTER, 1926-27—*continued.*

Cert. No.	Name.	Age.	Class.	Owner.	Address.
		Yrs.			
494	Grampian Lad ..	A	Draught ..	Richards A ..	Gymbowen
275	Grand Dillon ..	5	Light ..	Lewis, S. J. ..	Maldon P.O.
775	„ March ..	A	Draught ..	Hughes, W. M...	Belmont Hill, Inglewood
393	Granvalier Stamp	3	„ ..	Mitchell & O'Brien	City Horse Bazaar, Melbourne
517	Grattan Bells ..	A	Light ..	Sherwood, T. ..	Dooen North
776	Grattan's Voyage	A	„ ..	Busst, P. H. ..	Huntly
543	Gray Gordon ..	4	Pony ..	Weatherley, L. J.	Wallangoon, Mortlake
276	Great Dillon ..	3	Light ..	Lewis, S. J. ..	Baringhup
681	Guy Fox ..	A	„ ..	Maddison, H. ..	Morgan's Bridge, Dederang
226	Gwalia Caesar ..	A	Pony ..	McKoy, E. ..	Wodonga
519	Gypsy Hero ..	A	Draught ..	Grant, G., junr.	Picola P. B.
706	Halcyon ..	A	Light ..	Maclellan, Mrs. J.	241 Dandenong-rd., Windsor
227	Hambletonian Direct	A	„ ..	Wright, R. S. ..	Yarraberb P.O., via Sebastian
230	Hampton Ben ..	A	Draught ..	Seelander, P. ..	Warracknabeal
857	Harry Alto ..	A	Light ..	King, L. J. ..	Box 22, Quambatook
245	Harvest King ..	A	Thoro'bred	Nixon, P. C. ..	Orbost
450	Heather Douglas..	5	Draught ..	Hamilton, J. ..	Dandenong
389	„ Jock ..	6	„ ..	Dunnett, G. A. ..	Skipton
653	Heir Apparent ..	A	Thoro'bred	Defence Dept. ..	Melbourne
761	Hero Laddie ..	A	Draught ..	Robinson, H. F.	Kerang
590	Herward Junior ..	A	Light ..	Haebich, J. A.	Bittern
878	High Commissioner	A	Draught ..	Regan, M. ..	Thorpdale
825	„ Degree ..	A	„ ..	Schroeder Bros...	Murrayville
415	„ Honor ..	A	„ ..	Feltmann, C. H.	Major Plains, via Goorambat
591	Highland Boy ..	A	„ ..	Roberts, J. ..	Lalbert
732	„ Chief ..	4	„ ..	Baker, H. B. ..	Tandarra
282	Hillhead Knight ..	A	„ ..	Krause, R. E. ...	Kinimakatka, via Nhill
416	His Majesty ..	A	„ ..	Frawley, M. ..	Leigh Creek
592	Homeward Bound	A	Light ..	McCamey, D. & J.	Tinamba
520	Honest Wilks ..	A	„ ..	Adams, H. D. ..	Yielima
682	Honey King ..	A	„ ..	O'Loughlin Bros.	Leongatha
594	Humoresque ..	A	Pony ..	Bayley, A. C. ..	Willaura
417	Huon's Joy ..	A	„ ..	Wade, C. S. ..	Bronzewing
683	Ian McClelland ..	A	Draught ..	Naylor, H. ..	Warracknabeal
632	Ideal Toy ..	5	Pony ..	McLeod, M. ..	Condah Swamp
880	Interest ..	A	„ ..	Kennedy, A. ..	Arcadia
242	Invermay ..	A	Draught ..	Hayward, S. G...	North Wangaratta
145	Inverness ..	5	„ ..	Younger, W. ..	Hansonville
522	Invincible ..	A	„ ..	Adams, H. D. ..	Yielima
881	Ipidi	A	Thoro'bred	Kennedy, A. ..	Arcadia
186	Ironsides ..	A	„	Hore, M. ..	Talgarno
526	J.N.S.	A	Light ..	Taylor, S. J. ..	Lake Boga
523	Jack	A	Draught ..	Fanning, W. ..	Wyuna East
59	„ Craig ..	3	„ ..	Shields & Oxley	Eddington
525	„ March ..	A	Thoro'bred	McDonald, J. F.	Waddell-street, Bacchus Marsh
61	Jacko	4	Draught ..	Schnaars, B. F...	Netherby
246	James Osterley ..	A	Light ..	Huddleston, A. ..	132 Gheringhap-st., South Geelong

Stallion Register, 1926–27—*continued.*

Cert. No.	Name.	Age.	Class.	Owner.	Address.
		Yrs.			
371	Jimmie Mac ..	4	Draught ..	McDougall, H. P.	Bundalong
777	Jimmy Direct ..	A	Light ..	Isaac, J. ..	Inglewood
826	,, Lea ..	A	,, ..	Bradshaw, W., senr.	Skipton
268	Jinghal King ..	A	Thoro'bred	Reid, J. ..	Denicull Creek, via Ararat
593	Jock	A	Draught ..	Wolstenholme, G. T.	Milawa
779	,, Cedric ..	A	.. ..	Gardner, J. W. ..	Cavendish
434	,, MacGregor ..	5	.. ..	Reseigh & Flockart	Culgoa
595	John Douglas ..	A	,, ..	Dahlenburg, V. P.	Winiam East, via Nhill
827	,, Shepherd ..	5	,, ..	Dahlenburg, A. F.	Salisbury
684	Justice	A	.. ..	Clarke, Sir Rupert T. H.	Clarkefield
902	Kelly	A	Pony ..	Kennedy, D. ..	Murtoa
626	Kelso Ideal ..	3	Draught ..	Starritt Bros. ..	N. W. Mooroopna, via Tatura
249	Kelvin	6	,, ..	McKinnon, D. ..	Beazley's Bridge
923	Kelm Pride ..	A	,, ..	Lippiatt, C. ..	Scotsburn
386	Kenywn Baron ..	3	,, ..	Mitchell & O'Brien	City Horse Bazaar, Melbourne
884	Kerrston ..	A	,, ..	Carroll, E. ..	Corowa, N.S.W.
596	Khamasin ..	A	Light ..	Winter-Cooke, S.	Hamilton
654	Khartoum ..	5	Draught ..	Munro, D. ..	Casterton
421	Killara's Pride ..	3	,, ..	Menzel, F. A. ..	Lyndoch
405	Killawney ..	A	,, ..	Neville, E. ..	Marnoo
870	Kilmore ..	A	,, ..	Gribenoe, W. ..	Orbost
686	King Albert ..	A	,, ..	Hinneberg, C. F. W.	Underbool
685	,, Almont ..	A	Pony ..	Clarke, John ..	Mortlake
248	,, Ballance ..	A	Draught ..	Kennett, J. H. ..	Kaniva
765	,, Bee ..	A	Pony ..	McAlpine, W. T.	Lascelles
439	,, Bruce ..	A	,, ..	Pearce, J. ..	Wodonga
893	,, Cal ..	4	Thoro'bred	Campbell, D. L.	Merino
250	,, Clyde ..	A	Draught ..	Bean, W. ..	c/o J. L. Reece, Foster-st., Sale
635	,, Cymra ..	3	Pony ..	Holmes, E. ..	Wallacedale North, via Condah
648	,, Douglas ..	3	Draught ..	Hibbins, H. W...	Springfield Station, via Berriwillock
252	,, Duncan ..	A	,, ..	Leydon, P. ..	Cooma P.O.
528	,, John ..	A	,, ..	Cail, A. ..	Kamarooka
892	,, Marvin ..	6	Light ..	Walsh, F. H. ..	Melton South
598	,, Osterley A...	A	,, ..	Anderson, G. ..	Aberdeen-street, Newtown, Geelong
91	,, of the Kings	A	Draught ..	Hoken, C. H. ..	Phoenix-st., Maldon
676	,, ,, Roses II.	A	,, ..	McGillivray, M...	Bald Rock
597	,, ,, Shepherds	A	,, ..	Campbell, E. R.	Nypo
7	Kingsdale ..	5	,, ..	Zanker, A. A. ..	Box 73, Jeparit
794	King's Pride ..	4	,, ..	Fallon, Jno. ..	Iona
254	,, ,, ..	A	,, ..	Nelson, C. ..	Benalla
710	,, Prize ..	5	,, ..	Cuthbert, D. ..	Weerite
290	,, Treasure ..	A	Thoro'bred	Ritchie, G. ..	Delatite, Mansfield
193	Kitchener ..	A	Draught ..	Oldham & White	Dunkeld

STALLION REGISTER, 1926-27—*continued.*

Cert. No.	Name.	Age	Class.	Owner.	Address.
		Yrs.			
147	Kitchener's Pride	A	Draught ..	Cheesley, A. ..	Barnawartha
883	Lackamore ..	A	Light ..	Cahill, W. R. ..	Ky Valley, Kyabram
767	Laird Again ..	A	Draught ..	Fawcett, C. ..	Towaninnie
687	,, O'Gowrie ..	A	,, ..	Wall, A. ..	Rushworth
280	Lancashire Chief ..	6	,, ..	Meek, G. ..	Nhill
256	,, Lad ..	A	,, ..	Robinson, W. ..	Armstrong
440	Langdale ..	A	,, ..	Donnellan, M. ..	Jeffcott North
441	Latest Fashion ..	A	,, ..	Nicholas, C. ..	Lodge's Bridge, Mirboo North
688	,, Style ..	A	Light ..	Christenson ..	Traralgon
865	Lee-Creek Favourite	A	Draught ..	Ewart Bros. ..	Boundary Park, Dargalong
529	,, Squire..	A	,, ..	McConachey, T...	Winchelsea
742	Leonard Dale ..	4	,, ..	Wilkie, J. T. ..	Leonard's Hill
36	Le Clod ..	3	Light ..	Hinneberg, C. F. W.	Underbool
530	Le Rosier ..	A	,, ..	Parish, Mrs. E. ..	Horsham
334	Leo's Pride ..	A	Pony ..	Small, Miss G. ..	Springvale-road, Notting Hill
292	Lieutenant Mac ..	A	Draught ..	Rowe, E. ..	Yarroweyah North
905	Little Argyle ..	A	Pony ..	Lyon, W. H. ..	The Grange, Sale
780	,, Bill ..	A	Light ..	Corner, A. T. ..	Fosterville P.O.
293	,, Brigham ..	6	Pony ..	Tuckett, J. A. ..	Stony Creek
532	,, Comet ..	A	,, ..	McNally, Thos. ..	Mount Pleasant, Seymour
768	,, Eumarrah..	A	,, ..	Painter, R. ..	Leaghur
907	,, Leo ..	5	,, ..	Bray, Mrs. A. ..	Heidelberg
689	,, Milton ..	A	Draught ..	Hives, Jas. ..	Tempy P.O.
690	,, Pos ..	A	Thoro'bred	Urquhart, A. K.	Boonerah, Hexham
295	,, Welshman	A	Pony ..	Cameron, J. ..	Timor West
533	,, Wonder 3rd	A	,, ..	Ridd, N. J. ..	Molesworth
296	Lochaber ..	A	Light ..	Watson, H. ..	Ross Creek, via Smythesdale
297	Lord Aldie ..	A	Draught ..	Mackieson, S. E.	Buchan
55	,, Allan ..	6	,, ..	Barnes, H. F. ..	Berriwillock
701	,, Antony ..	A	Thoro'bred	McMillan, D. S...	Rainbow
298	,, Armadale ..	A	Draught ..	Lee, K. ..	Clunes
299	,, Cedric ..	6	,, ..	Lehmann, F. A...	Lismore
766	,, Dale ..	4	,, ..	Thomson, H. K.	Newlyn
333	,, Dillon ..	A	Light ..	Lewis, S. J. ..	Maldon
599	,, Everest ..	A	Draught ..	Ladson, G. R. ..	Mincha West
389	,, Huntly ..	3	,, ..	Hodgson, R. ..	Jeffcott North
140	,, Jellicoe ..	A	,, ..	McMahon Bros...	Ouyen P.O.
762	,, Lothian ..	3	,, ..	Rowan, W. M. ..	Edgecombe P.O., via Kyneton
871	,, Lynden ..	A	,, ..	Vickers, Jas. ..	Colbinabbin West
534	,, Northcote ..	A	,, ..	Hicks, Wm. ..	Pleasant Hills, Miram
576	,, Ronald ..	A	,, ..	Leathart, H. H.	Drumcondra, Geelong
138	,, Panic ..	A	Light ..	Hamer, D. J. ..	Smith-st., Croydon
828	,, Saxon ..	4	Draught ..	Landers, S. ..	Salisbury
9	,, Threave ..	A	,, ..	Schmidt, W. J. ..	Jeparit
408	,, Wallace ..	A	,, ..	Smith, C. ..	Dumosa P.O.
769	,, Welkin ..	A	Thoro'bred	Carmichael, D. H.	Swan Hill
771	Lorryman ..	A	Draught ..	Baldry, C. ..	Cosgrove

Stalion Register, 1926-27—*continued.*

Cert. No.	Name.	Age.	Class.	Owner.	Address.
		Yrs.			
651	Lowland's Marshall	3	Draught ..	Kennedy, A. ..	Arcadia
600	Loyalist ..	A	,, ..	Gray, O. ..	Wedderburn
41	Lucky Boy ..	5	,, ..	Graham Bros. ..	Bacchus Marsh P.O.
535	,, Jim ..	A	,, ..	Morris, J. ..	Woolsthorpe
693	Lu Lu's Dandy ..	A	Pony ..	Clarke, Sir Rupert T. H.	Clarkefield
692	Lue Ribbons ..	A	Light ..	Williams Bros. ..	Ross Creek
577	Lymm Loden ..	6	Draught ..	Emery, A. F. ..	Goomalibee P.O., Tarnook
781	,, Truffle 2nd	A	,, ..	Wallis, J. C. ..	Miram
694	Lyndale ..	A	,, ..	Conn, H. ..	Barrakee
420	,, ..	4	,, ..	Arnold, A. ..	Werrigar East, Warracknabeal

(*To be continued.*)

ORCHARD NOTES.

E. E. Pescott, F.L.S., Pomologist.

The Orchard.

As a preventive against codlin moth, apple and pear trees should be sprayed with arsenate of lead whenever there is danger from the prevalence of the moth. One of the secrets of success in codlin moth spraying is the destruction of as many as possible of the insects of the first brood. Thus, if particular care is given to the early sprayings, keeping the fruit covered with spray for a month or six weeks after setting, this result is easily accomplished. Some growers prefer to gather all fruit infected by the first brood, spraying only for the second and later broods. Even if all the fruits attacked are gathered, which very rarely happens, the grower suffers from the loss of fruit, which he can ill afford, unless his crop be a heavy one.

Another feature for consideration is the fact that the presence of any arsenical spray on the foliage is responsible for the destruction of the pear and cherry slug, root-borer beetle, and all forms of leaf-eating insects.

Spraying the cherries for the slug will now be necessary. Arsenate of lead may be used, provided the fruit is not far advanced. Hellebore, and also tobacco water, are effective against this pest.

Cultivation.

All orchard soils should be kept well worked during the summer months. It is very essential that the trees should have an abundant supply of moisture during the whole of the growing season.

This will mean an increased supply of fruit buds for the next season, consequently the frequent summer cultivation of the soil will be a necessity if the health and vigour of the trees are to be maintained.

Excessive transpiration is often the cause of loss of young trees and of new grafts. They are found to part with a large amount of moisture, and are not able to obtain or retain sufficient for their nourishment; they then very soon wither and die. The soil around these should always be kept well stirred; they may also be given a good straw or grass mulching, and an occasional overhead sprinkling will greatly benefit them.

The planting out of citrus trees may be continued, sheltering the tender plants from winds with hessian or breaks of scrub.

The general aims in summer cultivation should be to maintain a good loose earth mulch during the whole season, and to keep down all weeds and useless orchard growths.

Pruning.

Summer pruning may now be commenced, particularly on apple, pear, and plum trees. The removal or reduction of surplus leader growths, the shortening of unduly long laterals, and the thinning out of crowded shoots, will all tend to strengthen other parts of the tree and to increase the development of new fruit buds.

REMINDERS FOR JANUARY.

LIVE STOCK.

Horses.—*Stabled.*—Over-stimulating and fattening foods should be restricted. Water should be allowed at frequent intervals. Rub down on coming into stables in an overheated condition. Supply a ration of greenstuff, where possible, to all horses. *Brood mares* should be well fed on succulent food if available; otherwise, oats and bran should be given. *Foals* may with advantage be given oats to the extent of 1 lb. for each month of age daily. Provision should be made for shade shelter for paddocked horses.

Cattle.—Provide succulent fodder and plenty of clean water and shade. Japanese millet makes good grazing when the grass is dry. There should always be a supply of silage. The silo may be filled twice a year, and so a supply of succulent fodder is always available. Provide "lick" in trough, consisting of salt 20 lb., lime 20 lb., superphosphate 5 lb., and sulphate of iron 1 lb. Limewash the cow bails, it helps to keep down flies. Provide calves, if possible, with good grass run, or lucerne hay or oats in a trough. Now that the Dairy Produce Act is in operation, it is necessary to take proper care of milk and cream, as it must be paid for according to its quality. Utensils must be kept clean and well tinned. Cream must be cooled and kept cool and delivered fresh to the factory. Write to the Department of Agriculture for "Don'ts for Dairymen."

Pigs.—Supply short bedding in well-ventilated styes. Keep styes clean and dry, and feeding troughs clean and wholesome. Sows suckling young should be well fed to enable them to produce plenty of milk. Give young pigs pollard and skim milk in separate trough as soon as they will take it, and keep them fattening from the start to get them off as early as possible. Give a tablespoonful of

bone meal or superphosphate per 100 lbs. live weight in food daily. If pigs are lousy, dress with kerosene emulsion or sulphur and lard, rubbing well into crevices of skin, and disinfect styes. Plenty of water should be available for them to wallow in in hot weather.

Sheep.—The various breeds of ewes come in season approximately as follows:—Merinoes and comebacks, November and December; crossbreds, January and February; pure British breeds, February and March. These dates will vary with the locality, e.g., in the north of Victoria ewes generally come in season from one month to six weeks earlier than in the south-western districts or in South Gippsland. Be sure that there are ample rams, that is to say, from 2 to 3 per cent. If possible, use 2, 4, or 6-tooth rams. If older rams are used, it is preferable to join them with young ewes, and rams should be in proportion of 3 per cent. Always select rams with width and substance, true to breed, with type and wool qualities pronounced. (Do not use crossbred or mongrel rams. Pure-bred rams will produce better lambs.) If an ample number of rams be available, use the best first and the seconds afterwards. The mating period should not exceed eight weeks. It is well to have fresh rams after the first five weeks. The ewes should be in good condition at mating time, but not too fat. To start the rams working, yard the ewes with the rams for a few nights at the outset of joining. The ewes will come into season much quicker if flushed with good food just before joining the rams.

Breed from only good-fleeced, roomy, and sound-mouthed ewes. Keep in view wool-production as well as a good-shaped carcass. Lamb, mutton, and wool will be amongst the foremost commodities in Australia for some time to come, and with the prices ruling for these products at present, every sheep-owner should make determined efforts to improve his flock. Two-tooth ewes, if well-grown, may be bred from; this particularly applies to crossbreds and pure English sheep; also to the two-tooth ewes of a Merino flock if they are large enough, but they must be well treated throughout.

The second dipping of tick and louse infected sheep should be undertaken during January, but care should be taken not to dip during very hot weather.

Where the grass is dry and hard, all ewes that are hollow and "off their feed" should be given a purgative drench or pill. If weaners are scouring, worm-pills should be given. Grown sheep showing unhealthy discharge should be given a worm drench.

To make a suitable drench, dissolve 8 oz. of bluestone in 4 gallons of water. The following doses may be given:—

Adult sheep	2 oz. of solution.
Yearlings	1½ oz. of solution and ½ oz. water.
Six months	1 oz. solution and 1 oz. water.
Lambs	½ oz. solution and 1½ oz. water.

Attend to health of sheep generally. Do not overstock. Ensure an ample fresh-water supply. Healthy well-fed sheep rarely get fly-blown.

CULTIVATION.

Farm.—Get all crops harvested and stacked as soon as possible. Horse-hoe maize, potatoes and other summer crops. See to insurance of stacks of grain and hay.

Vineyard.—Summer bud or *Yema* grafting may be practised in January, though February is the usual month. (See Bulletin No. 35, obtainable on application.) This is the slackest month in un-irrigated vineyards—all ordinary work should be completed before Christmas. It is only exceptional operations, such as cultivating after rain, sulphuring in case of odium, or spraying for downy mildew, that must be carried out. Should heavy rain fall it will be necessary to repeat spraying in order to insure adequate protection. The final spraying, to protect foliage, and thus enable fruit to ripen under normal conditions, should be applied in January; the exact date will depend on the weather. In irrigated vineyards the application of water, and the cultivation it necessitates, require attention. Make it a rule to spray immediately *before* watering.

Cellar.—Fill up regularly and keep cellar as cool as possible. Towards end of month commence to make preparations for the coming vintage.

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Harvested from specially selected Bulbs. True to description, symmetrical in shape, and solid in texture. The seeds from these highly-selected strains are essentially the best procurable.

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PURPLE TOP YELLOW ABERDEEN—Very hardy, superior to many varieties cultivated for the table; 2/6 lb.

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WHITE GLOBE—Very large; 2/6 lb.

MAMMOTH PURPLE TOP WHITE—Heavy cropper, well-shaped and solid; 2/6 lb.

FOSTERTON HYBRID—Most profitable variety in cultivation; a heavy cropper, splendid keeper; 3/6 lb.

SWEDES

SOMNER'S A 1 PURPLE TOP (Best of All)—Perfectly globular in shape, heavy cropper and good keeper, 3/6 lb.

SKIRVING'S PURPLE TOP—Splendid as a table or field variety; 2/6 lb.

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Turnips and Swedes are excellent for Cattle, Horses, Sheep, and Pigs. They are ready late in Autumn, and if pulled and stored can be used during the whole Winter. **Sow 3 lb. of seed per acre.**

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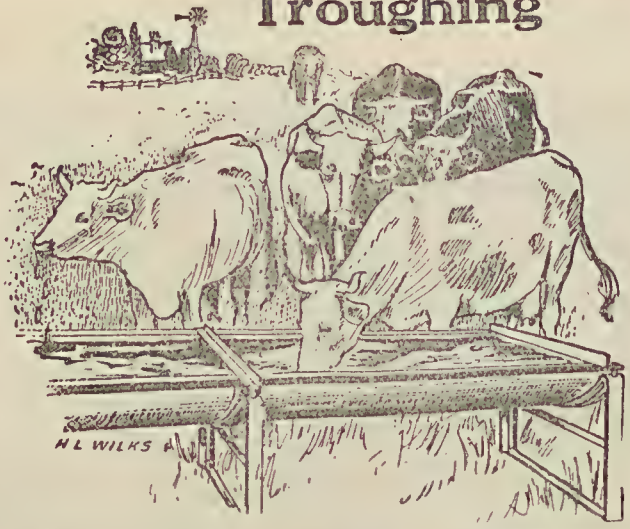

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is set in two or more heavy angle and T steel frames, which forms a most rigid bed and enables "BILLABONG" Troughs to withstand rough usage and hard wear. This Troughing is easily assembled and is made in styles to suit cattle, calves, and sheep, and also a very heavy type is made for pigs. "BILLABONG" Troughing is really worth your full consideration.

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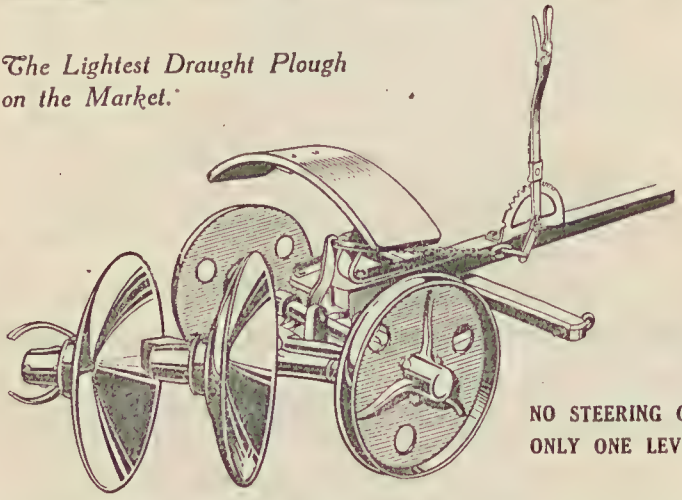

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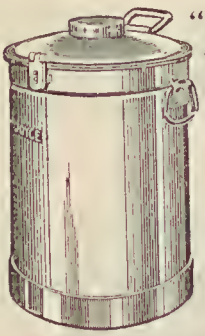

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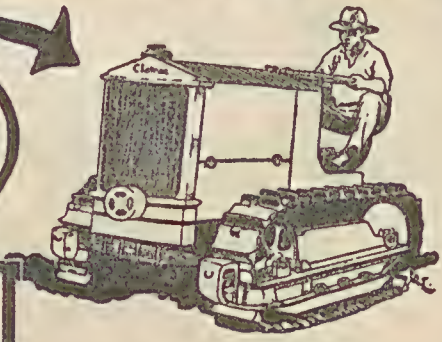

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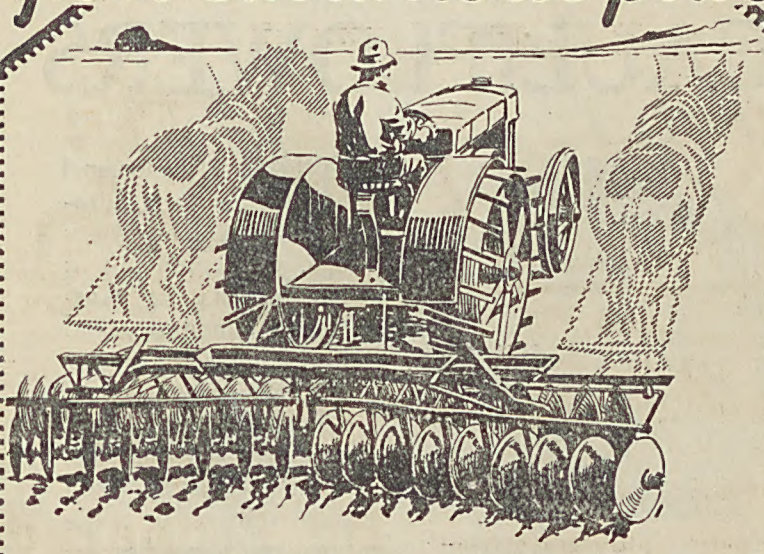

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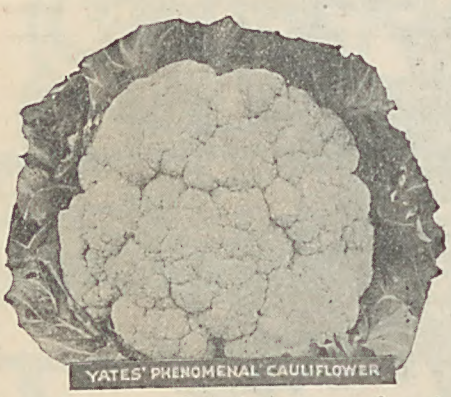
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Red Poll Dairy Herd

The Department has now completed the orders for calves that were booked ahead of calving when the advertisement was withdrawn; consequently the booking of orders for bull calves from the forthcoming calvings has now been resumed.

BULL CALVES are sold for delivery at a month old at prices based approximately on the actual milk and butter fat record of the dam at the rate of 1s. per lb. of butter *fat* yielded. Thus a calf from a cow with a 400 lb. butter fat record is sold for 20 guineas, one from a 300 lb. butter fat cow for 15 guineas, and so on. Bull Calves *ex* heifers on their first calf are sold for a set price of 10 guineas.

(For Record of Yields of dams see Red Poll Herd Book.)

SIRES IN USE:

VICTORIA VOLCANO (322 A.)

Sire: Nicotine (69 A.A.) by Acton Dewstone (imp.) 9524 (4 A.A.).
Dam: Tonga (253 A.) by Honingham Archbishop (imp.) 9702 (48 A.A.).

Tonga's butter fat yields for 6 successive lactation periods are as follow:—1916, 341 lb.; 1917, 398 lb.; 1918, 419 lb.; 1919, 479 lb.; 1920, 428 lb.; 1921, 562 lb.

BELLIGERENT (Imported) 11096 (8 A.A.)

Dam's Record (1st milking) 7144 lb. milk.

Dam's Dam's	,,	14533 lb. milk	...	4 years	average	12871 lb. milk.		
Sire's Dam's	,,	10370	,,	... 7	,,	,,	9354	,,
Sire's D. Dam's	,,	9510	,,	... 12	,,	,,	8033	,,
G. Sire's D. Dam's	,,	10215	,,	... 7	,,	,,	9386	,,
G.G. Sire's D. Dam's	,,	12565	,,	... 10	,,	,,	8853	,,
G.G.G. Sire's D. Dam's	,,	10088	,,	... 2	,,	,,	9754	,,

BIT O' 'BACCA (Vol. 3)

Sire: Nicotine (69 A.A.) by Acton Dewstone (imp.) 9524 (4 A.A.).
Dam: Nictitana (311 B.) by Nicotine (69 A.A.).

Nictitana's butter fat records for 6 successive lactation periods are as follow:—1918, 450 lb.; 1919, 396 lb.; 1920, 393 lb.; 1921, 465 lb.; 1922, 524 lb.; 1923, 536 lb.

Inspection of the Herd is Invited.

Visitors will be met at the Station on notifying the Manager, State Research Farm, Werribee.

Application for purchase to

Dr. S. S. CAMERON, DIRECTOR OF AGRICULTURE, MELBOURNE.

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